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THE STRUCTURE OF LEARNING GROUPS

by



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A THESIS

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The undersigned certify that they have read,
and recommend to the Faculty of Graduate Studies and Research for
acceptance, a thesis entitled THE STRUCTURE OF LEARNING GROUPS sub-
mitted by Wayne Matheson in partial fulfilment of the requirements
for the degree of Doctor of Philosophy.

ABSTRACT

Using two group treatments modelled on a training group format and with the two treatments administered to four randomized groups, this thesis was concerned with three fundamental issues. (i) A comprehensive examination of the hypotheses of group development and participant qualities, formulated by R.F.Bales. (ii) The utilization of existing psychometric techniques to study these hypotheses systematically; with the addition of novel applications of certain of these methods, using Bales' concept of a three dimensional "group space." (iii) An identification of, and an outline of the group performance of certain role "types" as they occur among the high interactors dispersed in this three dimensional "group space."

Bales' hypotheses of "nested" phases within problem solving groups, equilibrium of the task and social-emotional interactions, and the gradual differentiation of roles among group members were supported. The hypothesis of overall group movement across phases did not receive the expected support, probably because of the short duration and the natures of the treatments in these groups. The use of a "group space" was found to be a valid and meaningful concept in the examination of group structure. The group performances of the high interactors could be summarily described by means of eight of Bales' social psychological directions, or role "types." Six of these types occur in both group treatments; and three in every treatment group. These eight "types" were extensively delineated using data from standard tests as well as an impressionistic method. As a final step, the overall individual performances and learning outcomes were examined and discussed.

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STATEMENT OF THE PROBLEM

Many explanations of group phenomena take a very rudimentary form. Research often provides only a brief explanation of isolated incidents within those groups under study. Reports of progressive and successful group training are frequently determined through member testimonials or other subjective responses. Several things are crucially needed in the understanding of small group dynamics.

(i) Present conceptions of group process and development need to be put to the test to determine their accuracy and value to the field. (ii) Present techniques for examining small group process need to be utilized more frequently in attempts to help in an explanation of group dynamics. (iii) New concepts and approaches need to be designed and applied to help clarify some original but clouded thinking. (iv) Subjectivity and testimonials should be played down and more weight placed upon the objective evidence for change, if and when it occurs.

This thesis attempts to address these needs with special reference to one prominent researcher and theorist in the field, R.F. Bales. In the first instance Bales' approach to the understanding of group development is put to a series of tests. Secondly, present techniques such as Interaction Process Analysis, Questionnaires and Sociograms are used to help explain group development. Thirdly, an attempt is made to try newer, more sophisticated measuring

techniques, in this case the use of the three dimensional aspects of a "group space" as presented by Bales, to help to elaborate on group process. Fourthly, a major attempt is made to obtain objective evidence for any change which may have taken place in the groups under study.

INTRODUCTION

Educators have come to see "the group" as a potentially powerful medium for teaching and learning, especially for learning about particular aspects of human relationships. Conceivably, certain kinds of group experience could have valuable transfer value for teachers and students. In each instance we care to look at however, the burgeoning interest expressed in an increasing demand for "sensitivity training", "encounter groups", T-groups", "group dynamics", or "human relations training", has caused practice to outrun not only theory but outcome-research as well. The majority of practitioners who seek to satisfy the demand remain blissfully oblivious of the need to discover what actually happens in groups, having chosen to leap on the "bandwagon" rather than be left behind. They "know" their method works - or at least "it is doing some good". As a consequence, they become increasingly averse to understanding, through research, the nature of phenomena in this area: vested interests develop - the research worker might end by taking the bread and butter (or is it caviar and pheasant?) out of their mouths. "Sensitivity training" appeals intuitively as a viable approach to the understanding of human behaviour, to changing human behaviour and to learning how to apply behavioural principles in manipulating groups.

At least to many people participation in a group of some kind is more interesting than learning about these things

from books and lectures. There is a historical parallel between the rapid proliferation of groups these days and the rapid growth of the phrenological "movement", or more recently the "psychoanalytic movement". There is a strong, unsatisfied need to discover something about human behaviour, some formula that "works".

This thesis is addressed to the questions: "do groups work? If so, how?" Some of the questions that suggest themselves at this stage are: What really goes on in small groups? What do members learn by participating in them? Are small groups of any value as a teaching method or medium? If so, what are the preconditions of using them successfully in education?

This thesis will attempt to examine these questions. It is the product of several years of experimentation and critical observation of small groups. These groups varied in size, in composition, and in their assigned task. It is hoped that the reader will become acquainted with several methods of analysis which can be used as an aid to understanding the forces, patterns and processes which operate in on-going groups.

Little is actually known about human behaviour in small group settings. There is much speculation, assertion and dogmatism: there is a dearth of hard fact. At best, the present state of "group psychology" might be described as rather primitive. In the opinion of the writer, however, the

work of several twentieth century authors (e.g. Freud, Bion, Bales) present theories and techniques that provide a basis for increasing our understanding of human behaviour in groups. Skinner, while not actually working with groups, has contributed many concepts which seem also to be relevant and applicable, and find their way into this analysis of group structure.

Small Groups in their Educational Context

Advocates of sensitivity training and human relations training are almost unanimous in their belief that all participants increase in self-understanding as a result of being in a sensitivity group. This understanding they feel, develops primarily on the basis of the constructive "feedback" received by the individual from others in the group. It is claimed that there is a cybernetic effect. A person who interacts gives out information about himself to the group. Members interpret and comment on this and in this sense the participant receives "feedback" on his characteristic ways of interacting. Free comment is frequently one of the rules of group membership. As a result of this feedback, it is presumed that the behaviour of the group member will alter. He is free to accept or reject the information given by other participants and adapt his future behaviour accordingly. Whether his behaviour actually does change or not, he is still exposed to information, this is information

about himself that he will not normally get in such a concentrated form. As a result of this continual process of behaviour and immediate feedback, the group member would come to understand more about the discrepancy between his own view of his performance and the views of other group members.

Within the usual educational setting, there is little opportunity for this cybernetic process of performance and feedback to develop in relation to personal style of communication. The feedback an individual normally receives in an educational setting relates only to his intellectual performance, or to a particular skill. But this is just one aspect, perhaps a minor aspect of an overall, personal and interpersonal performance. Education is often directed to the head instead of to the whole person. Education frequently has little experiential emphasis. The learning environment is structured to minimise participation and the open expression of negative feeling. But the provision of a certain amount of feedback on other aspects of behaviour besides intellectual performance seems an acceptable and desirable improvement in educational emphasis. The small group situation, if used in an educational sphere could be the vehicle for such feedback.

Another commonly accepted objective of human relations training is for those who have undergone group training to

have become more sensitive to others as well as to their own behaviour. As a result of engaging in this cybernetic behaviour-feedback process and of learning something about their own behaviour, the individual also becomes part of the feedback process directed towards other participants. The group member provides his own interpretation of the impact the behaviour of others is having on him. He is able to compare the different behaviours he can observe around him as well as their positive and negative effects. Hopefully, he comes to understand more clearly, with the help of other participants and a qualified trainer, the behavioural "cues" that are available. He comes to notice non-verbal as well as verbal behaviour. He learns to discriminate these cues in terms of their impact on him, and on other members.

As an extension of these learnings, the group participant is encouraged to become aware of the group processes themselves. In this way the participant is asked to escape temporarily from the member-to-member interaction so as to be free to examine the overall dynamics of the group process. For example, the member can focus on the power relationships existing between the trainer and other members. He can follow the progress of the various cliques which are established over the life of the group. He can review the themes and myths that develop. He can seek to identify the various phases the group has passed through,

where it became fixed, and so on. This is a cognitive exercise, different from the previous types of learning the group participant is invited to engage in. Rather than be engrossed in an affective, interaction with other important group members, the participant must "cool" it a little, so as to return to a more focused exercise designed to improve the "quality of his cognition" rather than the "clarity of his identity" (Hampden-Turner 1970). This type of cognitive exercise should have considerable appeal in an educational framework. It would be relatively easy to set up group workshops designed around understanding the overall group dynamics. This is but one step removed from the very involving interpersonal interactions, and the characteristic emotional upheavals which occur frequently in human relations groups. The educator would feel much more at home in operating groups with goals such as these in place of "sensitivity training".

One long-term value to the educator of orienting his group-work around such goals as understanding group processes, is that group members are encouraged to develop skills closely related to important educational aims. The members of groups with these objectives would learn diagnostic skills, and be provided with a repertoire of helpful concepts. These skills and concepts could then be put to work in classroom situations to facilitate group functioning and to maximize intended instructional outcomes. The members

of groups oriented towards understanding the dynamics of group process would then carry away with them some valuable learnings which had direct applicability to future learning situations. It is not easy to see how the learnings about oneself resulting from sensitivity training can be transferred so readily. Admittedly, it is important to engage in this kind of interpersonal learning. But from an educational standpoint it could be considered more advantageous to engage in cognitive, as well as highly affective exercises.

From the educator's point of view, perhaps the most meaningful goal outlined by the advocates of sensitivity training is that of "learning how to learn" (Campbell and Cunnette, 1968). This has been described by Schein and Bennis (1965) as:

"the development of concepts and theoretical insights which will serve as tools in linking personal values, goals, and intentions to actions consistent with these inner factors and with the requirements of the situation (p. 17)".

The achievement of the intellectual abilities described by Schein and Bennis involves the integration of interpersonal learning and process learning. The members must be concerned with applying what they have learned about themselves and about others, as well as what they have learned

about the operation of groups more generally. They must be able to take what they have learned from these interpersonal and process aspects and apply it to a new situation. This implies that whatever has been learned by the members of the group must be capable of being transferred to a new situation. The participant must be able to leave the old group experience with certain knowledge about himself or certain new skills, which he can then apply outside the old group setting in such a way as to improve his social performance. Little evidence exists that such transfer of learning occurs. The most recent reviewers of research (Golembrewski, 1970; Egan, 1970) turned up only a few studies which provide any evidence of transfer. Other research workers suggest that the absence of any evidence for transfer of learning may be the most important reason behind the failure of sensitivity training to "catch on" in educational settings.

On the Present Status of Small Group Research

The most important shift in emphasis in the studies made on small groups in the past ten years may be from a preoccupation with the effect of groups on individual participants to a concern with the effects that individuals have on the group. The emphasis in group work shifted from experiments where attitude and ability measures were taken before and after the experience to discover group changes

and learning if this happened, to the use of measures which were concerned with the "here and now" experiences of the group members. This meant that the focus of research became the internal dynamics and internal composition of the group.

This change in the approach to groups is the result of questions which must be posed more and more sharply in view of theoretical differences that exist: "What is the reality of the group experience; how do the participants actually behave; what do they learn? Answers to these questions often depend upon one's initial orientation and training. A number of "schools" exist in psychology: these attempt to provide their own explanation of small group process. Each "school" has its own particular and distinctive emphasis; each has considerable support within that area of psychology which is concerned with therapy. These different schools do not value research and analysis of process equally. Some schools are more research oriented than others. Some are concerned more with the application of their principles for the benefit of clients. Their attitude is that it is better to do something, lacking full understanding of its effects than to do nothing until we are sure of what we are doing.

The most influential "schools" in small group research are in this authors opinion, the psychoanalytic, and interactionist. If we consider one of each of these theoretical

systems in turn, expanding on the distinctions and differences between them we may obtain a clearer picture of the current state of small group research and where it has its present applications.

The Psychoanalytic School - Rationale

Using the principles derived from the writings of Sigmund Freud, the psychoanalytic school places a great deal of emphasis on the influence of unconscious mechanisms in the functioning of the individual. To give a simplified description, one may say that in this school, the individual personality is regarded as basically complete after the first few years of life. During these early years the influence of parents and family are crucial. There is a process perhaps similar to "imprinting" by which critical learnings take place. Future behaviour is strongly influenced by a relatively closed system of libidinal (psychic) forces which act to conserve energy, to preserve the system and to maintain it in equilibrium. The state of equilibrium in the personality system is maintained basically by means of certain transformations of libido produced by inbuilt psychic mechanisms. Language and other symbolic behaviour are means through which sexual and aggressive impulses are expressed and are cathected (attached) to socially acceptable stimuli. There is a transference of feelings, which are learned in early life,

to other significant individuals. Fantasy, which represents the attempt to deny certain aspects of present social reality, is the other predominant method (defense mechanism) through which the individual cathects his socially unacceptable impulses. Through insight the individual may become aware of his defensive mechanisms. Insight is arrived at with the help of an extremely knowledgeable individual (the trainer or therapist) who uses the techniques of free association and interpretation to understand each individual's defensive structure as well as the defenses erected by the group against reality. With insight the individual can begin to cope with his irrational impulses and so behave more rationally in future situations. This insight can be arrived at either in individual psychoanalysis or in group sessions with the assistance of the therapist or trainer.

Among the analytically oriented group workers special mention should be made of the Tavistock Institute of Human Relations and the Tavistock Clinic. Here the group psychoanalytic approach was developed (by Bion), continues to receive attention and generates some research. Amongst the early practitioners are, in addition to W.R. Bion, S.H. Foulkes and E.J. Anthony. Foulkes and Anthony explain their method as dealing with the group as though it were a super-individual, and adapting the classical psychoanalytic technique to the group so conceptualized. The analyst, or

trainer, specializes on the interpretation of the transference phenomenon as it presents itself in the here and now. The therapist is not a participant in the usual sense of the word, but remains passive: his role is that of non-interactant observer (except when offering an interpretation of the present state of group to the group-as-a-whole). Otherwise stated, the trainer or therapist attempts to become a blank screen upon which are projected the authority images of the participants. This approach is heavily influenced by the work of W.R. Bion as well as by Melanie Klein and Sigmund Freud. The essential difference between individual and group analyses lies in the greater variety of interpretation in the group situation. The basic principles of group analysis are closely allied to the methodology of individual psychoanalysis. The characteristics of the therapist's group interpretations consist: (i) of breaking down the symbolic unconscious messages of the participants (ii) discovering and (iii) interpreting the mechanisms of defense being used by the individuals in their interaction with members, (iv) engaging the participants in his assigned role of transference figure, and (v) allowing the engagement itself to become a focus of concern and analysis in the same way as any other material emerging in the group session might be. These symbols, defenses and transference relationships are then translated in the best way possible,

being offered to the participants as "insights" in a neutral way and as close to their occurrence as possible.

Thus the participant can:

"freely voice his innermost thoughts towards himself, towards any other person, and towards the analyst. He can be confident that he is not being judged, and that he is fully accepted, whatever he may be or whatever he may disclose. There is in addition the interpretation of the patient's contribution in a meaningful language which he and the analyst can share. Further, by the particular attitude and role which the psychoanalyst takes up, the analyses of the all important transference situation is made possible". (p. 40).

A considerable amount of research is published on the Tavistock method. This is made available through the Human Relations Journal and the International Journal of Group Psychotherapy. A modified version of the Tavistock method, adapted to an educational rather than a therapeutic milieu, has been in use for over two years at the University of Alberta, Department of Educational Psychology. Data from such research groups is the concern of the remaining chapters.

Heavily influenced by Freud, Bion emphasizes the existence of unconscious forces which dominate the life of groups. The model is provided by Freud in his "Group Psychology and the Analysis of the Ego", (1921) where the small group is regarded as an analogue of the family which

in turn is related to such institutions as the church and the army. The overwhelming influence of the authoritarian leader in church or army is compared by Bion, with that of the trainer or leader in the small group. One of the major concerns of the members of the small group is to overcome their difficulties with this leader or trainer who represents authority figures from earliest childhood, reviving images of past control and resurrecting infantile attitudes to such images. In the church, or in the army - as in the family - repressive and disciplinary controls are provided and maintained to keep members in line, to prevent any disobedience to authority. In the small group the participant is given the opportunity to act out his feelings and attitudes towards authority. These activities are not discouraged, nor are they specially encouraged. But eventually, sooner rather than later they become the focus of concern. Thus the members of the group respond to the trainer's leadership in fixed and stereotyped ways. These represent the techniques they have learned for coping with authority. The whole group adopts a characteristic "culture" which enables it to function. That is to say, implicit approval is given to particular members of the group to deal with the issue of authority in a certain fashion which has become habitual with them. Individuals act on behalf of the group up to the point when the group withdraws its mandate from them. Bion (1948) must be

credited with first expressing the concept of "basic assumptions" as exemplifying these very "cultures" which groups characteristically adopt. The culture of the group is a sort of group mentality. The group, represented for the moment by a particular individual's overwhelming concern with authority, is caught up in a vortex of fantasy which expresses unconscious and symbolic associations and impulses. These "basic assumptions" take such forms as dependency, fight-flight and pairing, depending on the stage the group has reached. Individuals adopt corresponding conflicted or unconflicted postures with respect to the prevailing mentality of the group as it is caught up in one or other of these "cultures".

Fritz Redl (1942) in his essay "Group Emotion and Leadership" examined this aspect of leadership as representing images of parental or early authoritarian control. He used the school classroom situation to provide examples of different teacher personalities. These specific teacher personalities provided the pupils with different "identifications" with authority. In each instance the result of a distinct, although different, identification with these teachers provided opportunity for a different "culture" to occur in the classroom. Although Redl did not use the term "culture" there is a remarkable similarity between the theoretical positions of Bion and Redl. Redl provides a portrait of various kinds of "conflicted"

individuals and their characteristic behaviour when seeking to deal with their different pictures of authority. The conflicted individual is the pupil who cannot covertly cope with the unconscious images and emotions which are stirred up by a particular teacher. The pupil reacts not in terms of the reality of the teacher in the here-and-now; the pupil reacts rather to significant other individuals in his past experience. There is an overt acting out by the pupil which reflects his basic needs. Maybe it is a need for attention or for affection, or an urge to be aggressive. Whatever the basic need may be it finds expression when this particular teacher model is provided. Others in the class who deal successfully with their emotions, but who may have residual feelings about this teacher, give approval to the conflicted pupil to act out, as their representative, his conflicted desires. In this way a classroom "culture" is established. Redl describes it as "the influence the unconflicted exercises on the conflicted personality in the group".

Research workers who have taken up the analytic model presented by Freud, Bion, and Redl, tend to develop explanatory models of group dynamics which are variations on a single theme. This is to the effect that groups go through various discernable phases in their lifetime; these phases can be recognised from the various roles which are adopted by members at different stages of the life of

the group. These roles may aid or hinder the group in achieving its assigned task.

With respect to the so-called "self-analytic group", Dunphy (1964) suggests that the roles played by members and the phases of the group are synonymous. Indeed, he claims that the phases are simply periods of time when apparently rational "role-specialists" enunciate and work through certain pre-established phantasies or myths about the trainer. As the emotional state of the group changes, so does the image of authority. These changes are reflected in the phase movements of the group. Other research workers, using the self-analytic or other group techniques, provide different explanations for what seem to be similar phenomena to those described by Dunphy. Bennis and Shepard (1956), for example, cite the major concerns of groups as the problem of dealing with authority and the problem of intimacy. A series of phases are generated by the attempts which the group makes to overcome those two problems. Various "role specialists" are again located within the group. They may be useful to the group since they force it towards the resolution of certain focal conflicts. For example, in an initial phase of dependence, that individual who has the greatest need for structure, guidance and dependency volunteers (unconsciously), and is at the same time chosen by the group, to present the desires of the dependent faction. He, or she makes certain

overtures to the authority figure, asking him, pleading with him to "satisfy their needs". The group relinquishes its hold on this most dependent individual only when the members have exhausted their dependency strategems, or when other conflicts overcome or suppress the dependency needs. They then choose someone else to represent them as they tackle the next phase. But they continue to move within these two focal concerns of authority and intimacy, the group itself being totally unaware of these dynamics.

In a similar fashion to Bion and Redl, Bennis and Shepard (1956) also describe individuals as "conflicted" because they cannot handle the anxiety and frustration of disappointed needs. In the present author's view, other somewhat less conflicted members give the more conflicted members their "vote" to confront the authority figure and they are both "drafted" by the group and volunteer for the job. But the position adopted by Bennis and Shepard is that it is still other more "unconflicted" members who are really responsible for moving the group along. This view corresponds, to some extent, with the earlier principles outlined by Redl. As we have seen, he speaks of the "influence of the unconflicted on the conflicted personality".

Bennis and Shepard elaborate on the earlier conceptions of group development provided by Freud, Bion and Redl. They provide a more elaborate description of the sub-group factions which appear within the total "basic assumption"

cultures. These factions or sub-groups take up their position on a two-dimensional continuum of authority and intimacy, as shown on Figure 1, (p. 22).

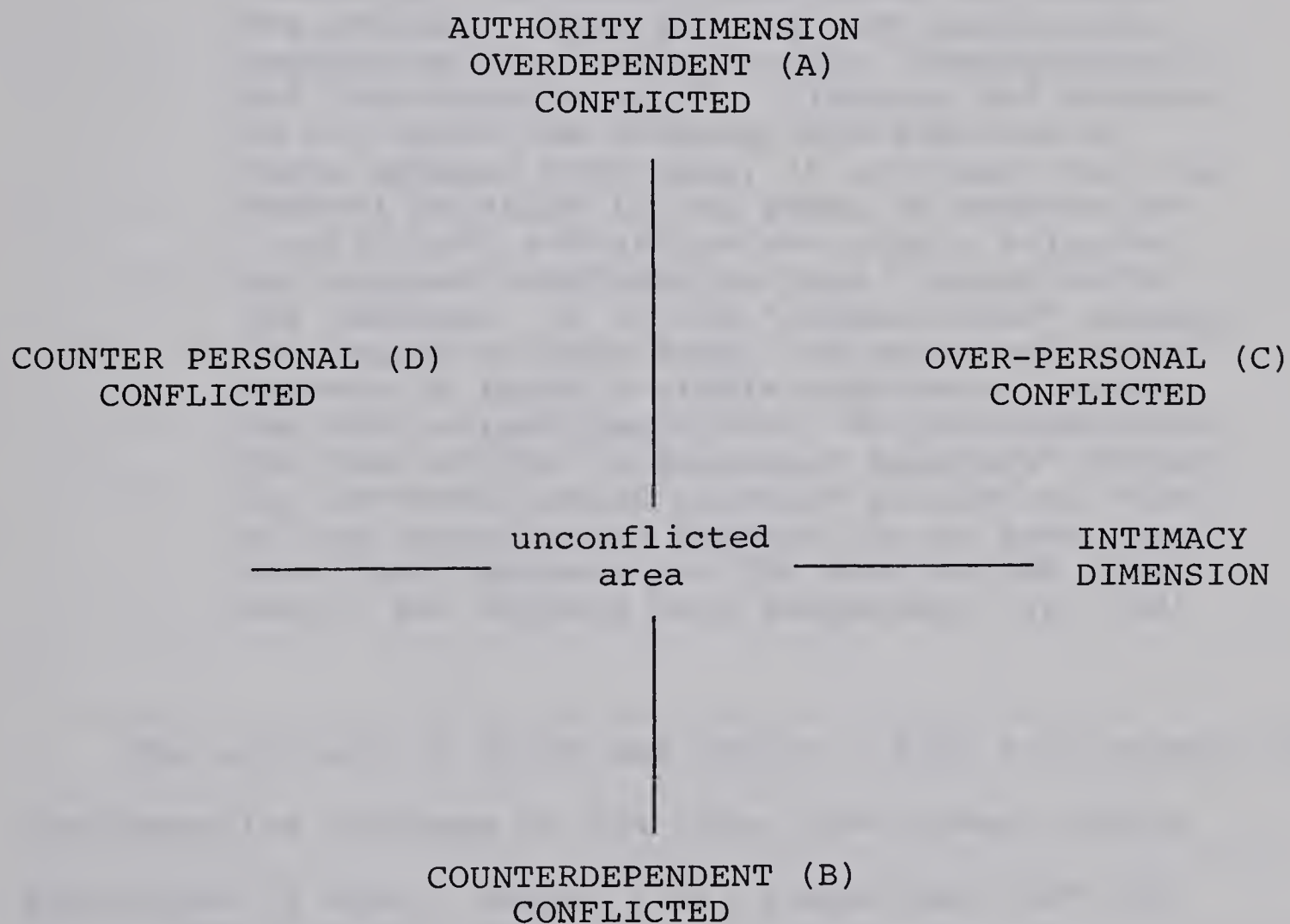
The important sub-groups may be conflicted on the issue of authority and exist as overdependent (A) or counter-dependent (B) individuals or cliques. Alternatively, or as well, they may be conflicted on the issue of intimacy and behave in the group as over-personal (C) or counter-personal (D) individuals or cliques. They may function as unconflicted individuals (circled area) who, although not demonstrating their cultural preference overtly, are often considered responsible for giving tacit approval or a "vote of confidence" to the conflicted individuals. The conflicted individuals may then behave overtly towards the authority in the preferred cultural area of that group of unconflicted individuals who have given them tacit approval.

During the phase movement existing in the life of the group, it is claimed that the various sub-groups clash and vie for power and influence over other members. They also are competing with each other for attention and approval in the eyes of the trainer. With respect to these elaborations on group affiliation, Bennis and Shepard (1956) have provided a very interesting extension of the earlier principles stated by Bion and Redl.

Mann (1966) has agreed basically with the statements of

FIGURE 1

BENNIS AND SHEPARD MODEL OF
GROUP ROLE STRUCTURE



Bennis and Shepard, but he offers some minor modifications. He points to a distinction between the unconflicted and what he calls the "independent enactors".

"Bennis and Shepard's (1956) discussion of group development notes the early split between dependent and counterdependent members, with each dominating a sub-phase of the group. Similarly, the group later polarizes around the intimacy issue and the most conspicuous members in this phase are the "overpersonals" and "counterpersonals". Although the authors do not trace the subgroup affiliations of these members over time, it is clear that the central polarity in the group is between two "conflicted" sub-groups who cannot tolerate one another's efforts to find a solution to the problem. It is the "unconflicted" members who emerge at each stage and encourage other members to forge a viable compromise between the two extreme positions. We have described the role of the "independent enactors" during the internalization phase as similar to that of the unconflicted members but we have found that their careers are far more varied than Bennis and Shepard have suggested." (p. 260).

The writings of Stock and Thelen (1958) are replete with corroborative evidence on the group development models postulated by Bion. Indeed these researchers use the writings of Bion to generate the hypotheses they are testing. Other models which fall within the analytic framework delineated in the previous pages are available. Bales, Bennis, Dunphy, Mills, Kaplan and Roman appear to be in basic agreement with the analytic description of group development. These writers, where they differ, do so more in

in terms of emphasis than of principle. There seems to be basic agreement that phases appear with some regularity in the life of groups and that these phases are related to the group's perceptions of the authority figure (the trainer) and to the interpersonal relationships of the members. Additionally, there appears to be basic agreement that "role-specialists" emerge either (a) in association with these specific concerns and phases or (b) in connection with the state of affection prevailing in the group (Dunphy, 1964).

There exists some quarrel over the question whether the phases groups go through are nested (Bales), random (Bion) or circular (Schutz). There is also disagreement over whether such role developments as do occur are a function of group influence, or of the personality of the individual and his private value structure (Bales). There is conjecture over whether individuals are "conflicted" or "unconflicted" with respect to certain issues. These questions will be taken up later and looked at in the light of our empirical evidence.

Interaction Analysis

Rationale

Interaction analysis is analogous to stenography and shorthand. It is the descriptive shorthand of interpersonal

behaviour. Interaction analysis made up of skills such as observing, recording and analyzing the record of behaviour in such a way as to make sense out of what has happened. In most systems in use, it consists of taking very small "bits" of the action, identifying them by means of a coding scheme and recording them in these special categories. The categories are designed to incorporate all possible types and forms of behaviour. A general purpose interaction analysis system should probably include;

- (I) the affective or emotional components of behaviour;
- (II) it should include the cognitive or intellectual components;
- (III) the nonverbal or "meta-language" components should be taken into account;
- (IV) as well as the sociological or personal network segments of behaviour.

The great variety of behavioural systems and the claims made for the inclusiveness of some or all of the above dimensions has generated a great deal of research within classroom, T-groups and other human relations groups, institutional settings, counselling and therapeutic settings. It is mainly classroom settings which have received the most attention. The original purpose of interaction analysis were those of describing the categorizing behaviour as it occurs within social situations such as the classroom. Initially enquiries were very empirical in character. The kind of questions investigated were about "models" for effective teaching, and contrasting teaching styles. The teacher's

role was the focus of early interest. But increasingly, the interaction systems themselves became a focus of interest as training rather than research tools. Analysis was used to provide "feedback" for practicing teachers, to supervise teacher trainees, and to check out teacher's actual behaviour in the classroom (Flanders, 1970). The objectives of this training have been formulated as (i) to increase personal insight in student trainees through objective and non-evaluative feedback; (ii) to provide opportunities to practice and test the effect of new behaviour with corresponding feedback; (iii) to demonstrate individual differences between trainees, to separate opinions about behaviour from the reality; (iv) to develop skills for use in future evaluative situations, and so on. In these and other ways, the systems of interaction analysis have become tools for research workers, supervisors, trainers, and participants in classroom groups.

In other small group settings the uses of interaction analysis systems are somewhat different. Allowing that both verbal and nonverbal communication is replete with words and gestures which convey a multitude of messages; and which may be blatantly manifest or covertly subversive, it can be a task of interaction analysis systems to either encode or decode these communications whenever possible. Within the small social groups which are commonly researched it becomes impractical, if not totally impossible, to keep

should be recorded whenever humanly possible. Groups are a continuously changing social-system and the behaviour of the members may be stable or unstable at various periods in the group history. Interaction analysis systems which study the small group should have inclusive and continuous scoring built in, or they may be unable to keep fully abreast of the group.

A good system has to have some parsimony. The analytic system cannot be as complex as the individuals it is designed to study or its days are numbered. It must be concise in its inclusiveness. This is not a simple task for systems designed for describing and categorizing human behaviour.

Interaction analysis systems that are presently available are not all subject to all the above criticisms but frequently they are caught in one trap or another. Either their categories fail to allow for particular kinds of behaviour or their definitions are such that a given behaviour may be as well placed in one category as another. The result of this is frequently a high unreliability in coders, overcome only through extremely long and arduous training periods. Some systems which are concerned with small groups take an overconsiderate view of one particular kind of content. For example they might focus heavily on verbal material without a fair sampling of non-verbal information. Or they deal with cognitive, intellectual

track of the meaning behind the messages being passed conspicuously around the group. Even such gross information as the number of positive or negative statements made during a group session becomes an unwieldy task for a researcher unless he has analytic tools he can put to work to make such coding meaningful. Additionally by adding a more "honest" decoding to the message; than one of a somewhat biased and highly subjective researcher, it adds credibility and comparability to the results. The problems of imprecision and subjectivity of experimenters are reduced somewhat through the use of a good system of interaction analysis for small groups.

The interaction analysis systems which are available for small group research are limited. The criteria for research acceptability are multifold. A system must have a capacity to combine clinical interpretation within a statistical framework. It does not have to be a complex, cumbersome statistical framework but one which helps to remove the decision-making onus from the experimenter, even if just to make such decisions as to whether such a difference between various categories is large or small.

Especially for use as an inductive source of generalizations, an interaction analysis system should be inclusive. Behaviour does not just stop or start but is on-going at all times. No behaviour is necessarily more important than any other behaviour and so all behaviour

material at the expense of the affective, emotional sides of behaviour. Some interaction analysis systems are obviously better than others because they do not have these particular predominant problems. Among the better systems are those of Flanders, "Interaction Analysis System"; Mills, "Sign Process Analysis" (1964); Mann's, "Member-to-leader Scoring System" (1966); Stone, Dunphy, Smith and Ogilvie, "The General Inquirer" (1966) and Whitaker and Lieberman's "Focal-Conflict Model" (1964).

At present, in the writers opinion the best system of interaction analysis in small group settings is Bales' Interaction Process Analysis (IPA). In this system, everything that is said and done in a group is regarded as important and should be recorded. It does not matter how trivial or unimportant the behaviour may seem to the observer, it could be integrated and related to the overall development of the group. It is no small task to develop a category system which includes everything that occurs and can be observed. It is made an even more complicated task when the system has to be simple enough to remember and use in an ongoing, active group. Bales provides twelve categories. He believes that these twelve categories are inclusive. Every "act" or definable piece of behaviour should be classified in one and only one category. No behaviour should be omitted from the record if it is observed. The twelve categories are defined succinctly as:

- | | |
|----------------------|-------------------------|
| 1. Seems Friendly | 7. Asks for Information |
| 2. Dramatizes | 8. Asks for Opinion |
| 3. Agrees | 9. Asks for Suggestion |
| 4. Gives Suggestion | 10. Disagrees |
| 5. Gives Opinion | 11. Shows Tension |
| 6. Gives Information | 12. Seems Negative |

The procedure consists in a trained observer recording the behaviour observed in these categories, by number, as they occur. The sequence consists of noting that a particular group member (say, number 5) addresses another member (say, number 8) in terms which can be categorized as "Category Seven" (7). A simple example of this might be: 5 says to 8, "What time is it?" The definition of a scoreable act is not left to the intuitive judgement of the observer but is given in the comprehensive definition of categories and of acts provided by Bales in 1950, and again in 1970. Once an observer is completely familiar with the categories and the definitions of acts, the system appears considerably more reliable than it does at the outset. In addition to verbal behaviour, such as the example provided above, the non-verbal aspects of behaviour are coded as well. Overt forms of behaviour, such as facial expression, body posture, tone of voice, must be considered very relevant in determining the category. The non-verbal behaviour, in the same way may be directed towards any member of the group, or to the group as a whole. When the system of categories, the definition of acts, and the referents for action become totally familiar to the observer,

he or she has an instrument in the form of a viable system for recording on-going behaviour as it occurs in any small group. A scoring grid can be provided on which the group behaviour is recorded and tallied (Figure 2). The resulting tabulations can then be organized into a meaningful representation of what actually transpired in the group (Figure 3).

Looking at the various tables provided by the analysis, the observer can discover the total number of acts initiated and received by each member and by the group as a whole. A general picture of the situation begins to unfold. Individual members can be compared with each other; they can be compared to the average of their group, or to the norms supplied by Bales (1965). Different indices of interaction can be calculated which enable us to describe the position of a particular group member in relation to the overall group interaction. Such information as the position of any individual in the group with respect to his access to important resources such as information, opinions and suggestions can be provided by the analysis. His position in relation to the issue of group control, can also be found. Information about his overall prominence in the group could be arrived at from tables showing his rate of initiating and receiving acts. In addition, any individual's power position in the hierarchy group can be understood from a count of the acts addressed to the whole group and to

FIGURE . 2

[illegible]

Group.....	Date.....	1st (or last) (or page no)	Remark
------------	-----------	-------------------------------------	-----------------

FIGURE 3

Group number	1		2		3		4		5		6		7		8		Total	
	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R
category																		
als																		

- acts initiated

- acts received

individual members. It is a fact of observation that persons in power positions tend to address the group more often than they address individuals.

It is also meaningful to look at the behaviour pattern generated by the group as this is shown by the total in the various categories. Bales' system is organized in such a way that the twelve categories constitute an organized system. The three initial categories are regarded as being in the positive socio-emotional area (A); *correspondingly the last three categories are in the negative socio-emotional area (D); *the middle sections of categories are the task areas. C is for questions, while B is for the corresponding answers to such questions, many of which are task related. There is a further division of the classification such that particular pairs of categories are related to each other and to particular fundamental group concerns. Categories 6, 7 focus on the problem of communication; 5, 8 focus on evaluation; 4, 9 focus on the issue of control; 3, 10 are concerned with decision making in the group; 2, 11 are concerned with tension reduction and 1, 12 focus on the issue of reintegration. These pairs and their association with particular group problems or concerns are considered to be nested under certain conditions

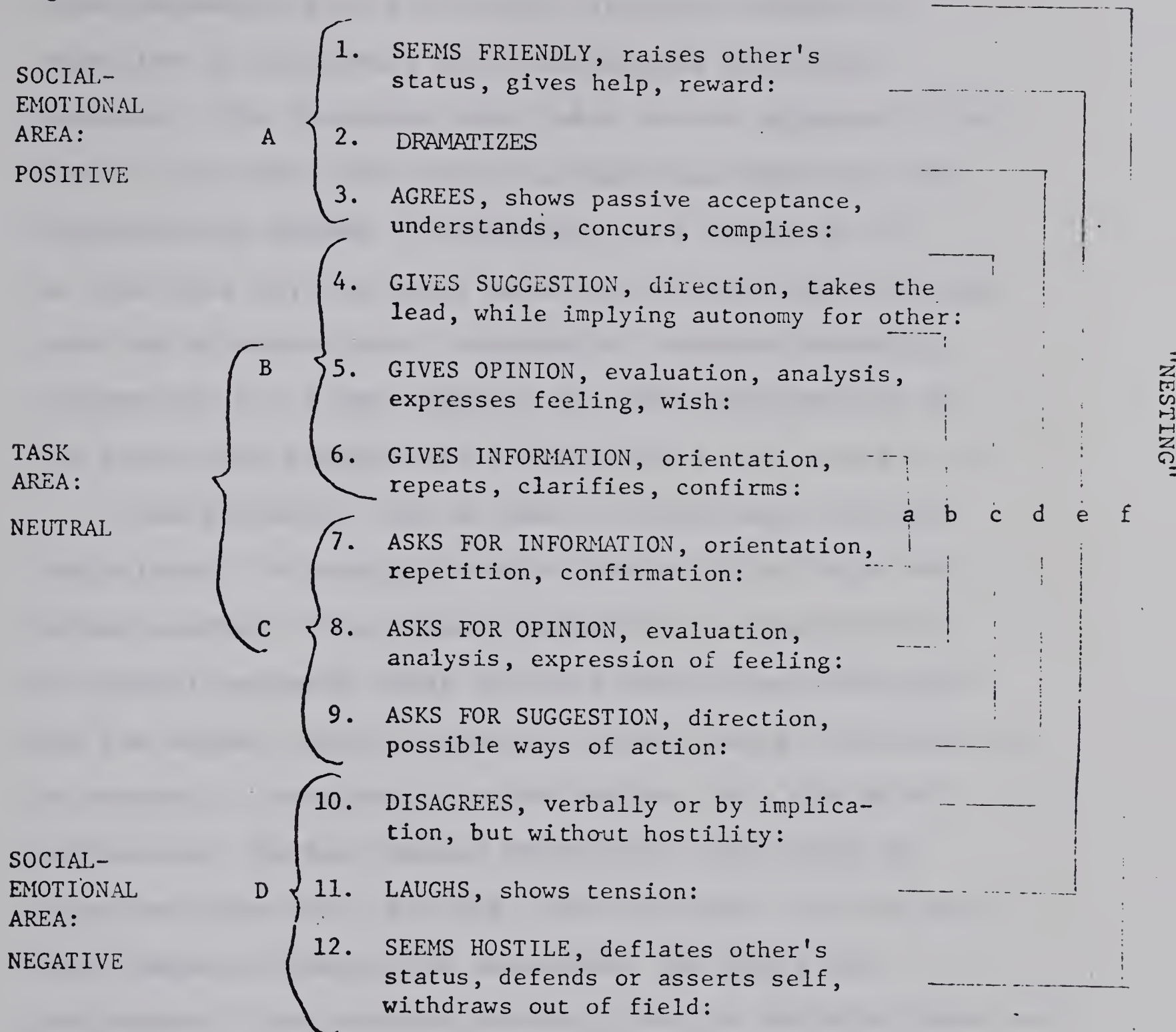
* In the revised method, based on empirical results, categories 2 and 11 are classed as "mised", neither position nor negative. (Bales, Personal Communication, 1971.)

(see Figure 4). The beginning group in what is called a full-fledged task, finds its first concern to be the issue of communicating the particular task to the various members. As a result, there is a predominance of acts recorded in categories 6 and 7 during initial phase of the group while it is engaged in this particular problem. Gradually the group moves out of this particular problem area into an evaluation of the task. In this phase categories 5 and 8 predominate. In time the group moves through the whole series of problem areas, in regular order. This is the nesting process. Each set of category pairs has special prominence in a predetermined order. The tendency is for the group to move from the center categories (6, 7) out to the extremities (1, 12). In other words, the group moves from an initial phase of communication to a final phase of reintegration where the emotional concerns are dealt with. This is the normal sequence, but only under certain conditions, called full-fledged. Other conditions produce other emphasis and time patterns.

Returning to the triads of categories described earlier: the extreme categories labelled A and D are concerned with the emotional and social aspects of the interaction process: the middle categories classified as B and C are mainly instrumental or task components of the group interaction. It is clear from the description of the

THE VERBAL ANALYSIS OF BEHAVIOR: BALES' SYSTEM

All behavior, verbal or non-verbal, is observed and classified in one of the twelve categories below:



Key

A Positive Reactions

B Attempted Answers

C Questions

D Negative Reactions

a Problems of communication

b Problems of evaluation

c Problems of control

d Problems of decision

e Problems of tension reduction

f Problems of reintegration

phase movements that the group's initial concern is cognitive in character, with subordinate emotional concerns. The questions are: what are we supposed to do? What is the task? The focus is such that many acts are appropriately scored in categories 6, 7 (areas B, C). As time goes on, the group moves out of the cognitive area into the affective one. Problems of tension reduction (categories 2, 11 and areas A, D), and reintegration of the group then predominate (categories 1, 12, areas A, D).

Theoretically, this is how it works under certain conditions. In practice events rarely follow this neat scheme exactly. The phase movement can be perceived as an overall movement under strictly controlled conditions but the actual group interaction in most group situations is an unstable, irrational process subject to a myriad of influences. Forces operate which drive the group in opposite directions, now one, now the other. On the one hand, members clamour for structure, for goals and achievement (instrumental activity) but in addition there are stresses and strains, feelings of frustration and anger, hostility builds and petulant forms of behaviour appear (socioemotional activity). The group never seems to remain long in a stable state: there is a continual turnover of decisions which alternate between the desire to achieve the task, giving way to negative feelings and re-establishing positive feelings.

Bales' premise is that the best model we have for understanding what goes on inside the individual is that of what goes on between individuals in the group in the course of this problem-solving process. The individual in the group re-enacts the social processes, and tries to re-establish the positions he found successful with other individuals. By using this perspective, Bales seems to suggest, we may come to understand behaviour better than we can in any other way.

A cursory look at the studies of small groups using Bales' original scheme indicates that until 1965 the system did not provide for a comprehensive description of individual personality. Bales' (1950) IPA system provided a sociological picture of small group processes of an actuarial character, more than a depth analysis. With the publication of his latest book a change in emphasis can be observed. Bales has extended his IPA system in line with an increased concern for understanding particular role developments and the influence of individual personality on the problem-solving process within the group. Additionally he has developed questionnaires to serve as additional tools to supplement the IPA descriptions of individual personality (see Appendix A).

Studies in Bales' laboratory at Harvard, involving sociometric data, questionnaire materials and personality tests, in conjunction with interaction measures (IPA), have

resulting in systematic description of 'directions of social psychological movement' or personality 'types'. It is claimed that individuals in a group can be classified, by an analysis of the pattern of group interaction in terms of one or another of these social psychological directions (s.p.d.'s).

The main directions are thought of as three orthogonal axes which define a three-dimensional psychological space (Figure 9, p. 87). These axes are described as: dominant-submissive (upward-downward); arousing pleasant or unpleasant feelings in others (positive-negative); accepting or rejecting the group norms (forward-backward). To visualize the 'social psychological directions', the axes can be thought of as meeting at the central point in a cube made up of 27 blocks (the 27th block is at the centre, and signifies a 'direction' which is neutral in all respects). It is possible with this scheme to place each member of a group in one of the 27 locations, his location (or s.p.d.) being symbolised by a unique combination of one, two or three letters indicating the axes along which he departs from the average, or neutral position. The individual may be 'located' by analysis of his scores in the 12 IPA categories by member ratings of each other, or by various other methods. As a group continues to interact, roles and behaviour can be predicted on the basis of the s.p.d.'s indicated by one method and these predictions can

then be checked by other methods.

To summarize; it appears that various claims are made for IPA of the greatest interest to all students of human behaviour. These claims require verification or rebuttal by an independent investigation. The claims may be summarized as follows: (i) it is possible to infer personality traits from social interaction in groups recorded and analyzed by IPA; (ii) predictions of subsequent behaviour can be made from an informed reading of the interaction recorded in earlier sessions of the group, this being especially the case with respect to leadership patterns; (iii) observers, completing Bales' specially devised Interpersonal Ratings Questionnaire for each member of the group, can check the resulting s.p.d. against the analysis of IPA scores. It would be of the greatest relevance to ask whether the description of the s.p.d. from the IPA analysis and/or the questionnaire or sociogram is recognizable as specifically applicable to the person in question.

CHAPTER 2

A THEORETICAL APPROACH TO SMALL GROUP DEVELOPMENT

Introduction

The preceding chapter covered the research on two existing approaches to the study of group process. In this chapter one particular theory of group development will be covered in some detail. This theory is chosen because it is, in the authors' opinion at least, the most acceptably sound, and well documented of all the present approaches to the study of small groups.

The theory of group development which was found to be the most acceptable to the writer and upon which the major part of this thesis is founded, is that of R.F. Bales. In the discussion on interactive methods of small group development which composed the latter section of the research review, the method of R.F. Bales was the only one discussed in any detail. It is hoped that a discussion of his theory of group development, in the more detailed sense, will not cause any unnecessary confusion. Since Bales was primarily responsible for Interaction Process Analysis (IPA) as a means of describing and categorizing social interaction, and IPA was the main focus of discussion in the last section of Chapter 1 on the interaction analysis approach to the study of small groups; part of what will be said about Bales'

theory of group development may be slightly redundant. This is possible but unlikely since the theoretical approach to group development as expounded in IPA and subsequent revisions (1970) was not discussed at very great length in the earlier chapter. Additionally Bales' theoretical perspective is much more comprehensive than can be explained through a discussion of the category system or the consequential three dimensional group space.

Bales' Theory of Group Development

Bales' approach to the understanding of group development is based upon a fundamental premise: that the examining behaviour within the group is an acceptable recapitulation of what occurs within the human personality, and that individuals engaged in problem solving activity with others will re-enact the same procedures as those originally found rewarding in previous social encounters. In this way the examination of what goes on between individuals in a group can be used as a model of what goes on within the individual personality (1951, p. 62).

When a set of individuals are brought together as members of a particular new group, Bales' contention is that such individuals are faced with two particularly important and pressing classes of problems. Primary for many groups, though not all, is the problem of solving the presented "task" of the group. Additionally there is the problem of

arranging the social structure of the group so that the interpersonal needs of the membership will be met.

These two problems are usually referred to as the "task" and "social-emotional" concerns. For Bales, the group development is best understood as the establishment solutions to these two problems, as they arise and are distributed over time and across persons in the life of the group. Any changes that occur in the group, whether in the social structure or membership "culture" can best be understood as a reaction to change in the states of solution of these two crucial problems.

Within these two problems of "task" and "social-emotional" development there are a number of sources of variation which help to account for the distinctiveness of each group. These sources of variation are responsible for the present motivation of the group membership. One such source of variation is the type of task presented to the group members, and the corresponding structure of the environment they have to draw from to complete the task. Another source of variance is the pre-existing personality traits of the group members. Another variable is the culture and values established through previous and present group experience. Additional variance is accounted for in the social relationships and roles adopted by the members over time which influence their present group expectations. In the course of dealing with

the task and affective problems which are prominent in the group and in doing so over a certain period of time and across a number of persons, there are particular labels which Bales often applied in his conceptualization:

- (a) An instrumental problem is concerned with implementation of the needs and desires of the group membership.
- (b) An adaptive problem is concerned with the adaption of activities within the group to the situation external to the group social system itself.
- (c) An integrative problem is concerned with the integration of activities within the group social system itself.
- (d) An expressive problem is concerned with the emotional tensions within personalities as a result of any changes on the group social system.

To speak of, these four functional problems is another way of talking about the task-social emotional dimension as one axis and the external-internal system dimension as another. In addition, however, a distinction is recognized in these concepts between a more active or dominant relation and a more passive or submissive relation (as in an adaptive readjustment of activities) to a dominating situational condition. This distinction is clarified and recognized as the separate dimension of Upward versus Downward, or dominant versus submissive,

in Bales' newly developed three dimensional conceptualization. The three dimensions are presented as a better conceptualization than the former four functional problems. (See Bales, Int. Ency. 1968 article.)*

For Bales the group is a small social system which has a wide range, but still identifiable kind of input. The input is limited by the sources of variation outlined earlier as personality, culture, external environment, social relationships. With such input the group is presented with a task to accomplish and a consequent social structure to establish. In doing so it meets with particular functional problems which are somewhat unique to each particular source of variance. These problems are instrumental (task concerned), adaptive (concerned with adapting to external reality); integrative (having a viable internal structure) or expressive (releasing tensions associated with change). The solutions to these problems are frequently institutionalized and commonplace. The group attempts to solve them through just such institutionalized solutions. Any change in the content or state of the institutionalized solution to these problems causes additional changes in all parts of the social system. Group dynamics is the study of such changes, their precedents and consequents.

In the solution of the various functional problems which the group will face in its lifetime it will pass through some specialized periods of social interaction.

* Bales, Personal Communication, Sept, 1971

Bales, in association with F.L. Strodbeck (1951), has developed a phase hypothesis to describe how groups tend to move to a decision, or resolution, under a special set of conditions called full-fledged. Phases are defined as "qualitatively different sub-periods within a total continuous period of interaction in which a group proceeds from initiation to completion of a problem involving group decision (p. 485)". The phase hypothesis itself describes the group as moving from an initial period where the emphasis is upon an orientation to other members and to the task, to the problem of evaluation, and subsequently to problems of control, and that concurrent with these transitions the relative frequencies of both negative reactions and positive reactions tend to increase (p. 485).

The phase hypothesis is expected to hold true only under certain conditions which are described by Bales (1951). The hypothesis is subject to the input variations previously described. Bales has expressed doubt, for example that the phase hypothesis will hold for groups whose composition is not of normal intelligence, or who are seriously disturbed. Other researchers have obtained varied results. Psathas (1960) has found the phase hypothesis to hold for psychotherapy group while Ratner (1970) has found evidence against it. With regard to the culture of the membership as a variable Bales has said little.

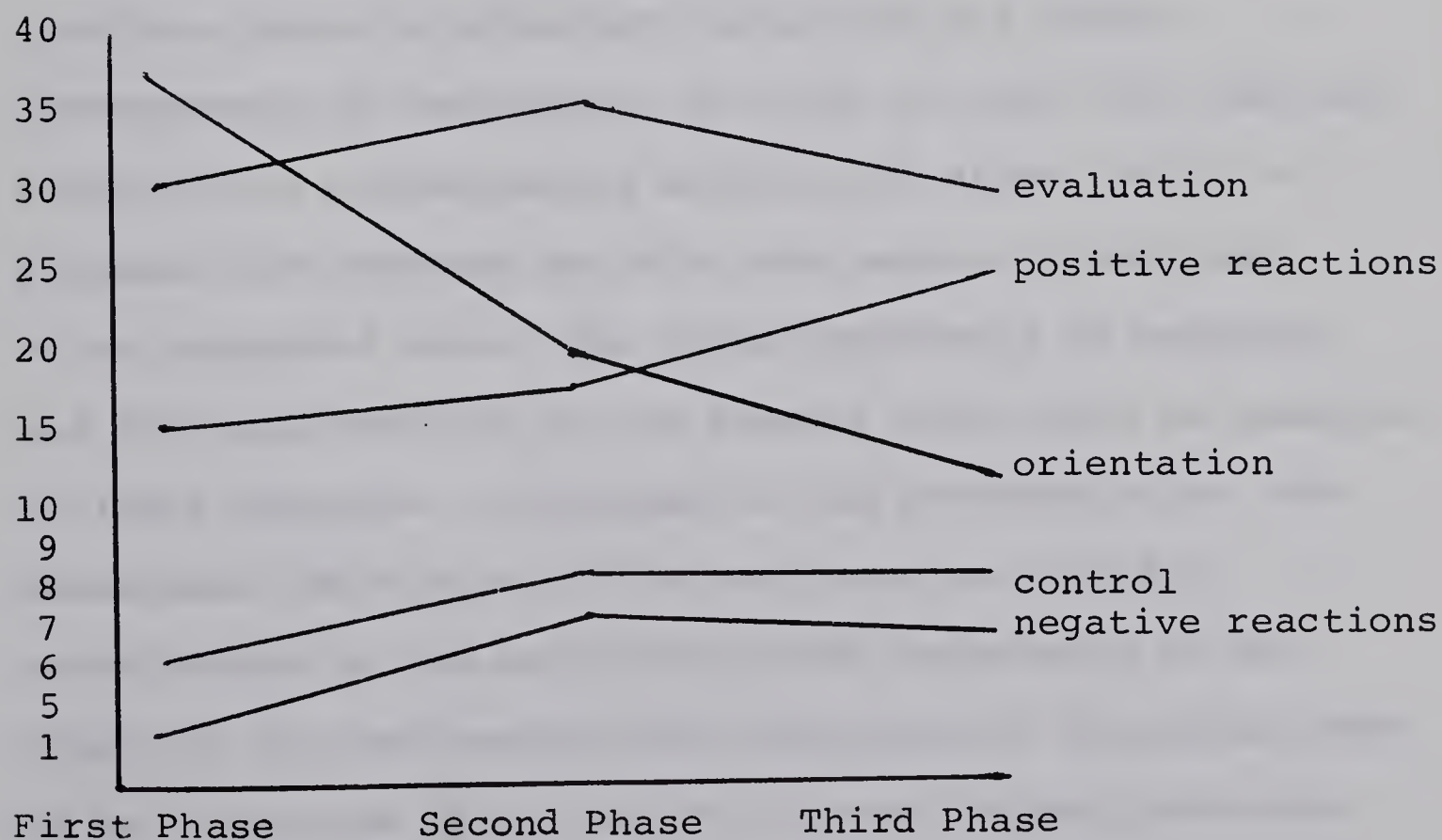
His particular sampling of Harvard undergraduates however is probably not a normal cultural cross-section even of our own culture and it might be possible to explain particular kinds of results in terms of the different value positions adopted by the membership (Devereux, 1961). Whether such differences would cause any major flip-flop of phases remains to be answered. The question of social relationships and role developments within the group affecting the phase hypothesis seems of more concern to Bales. The status differences and ability to reach consensus, as well as member satisfaction seems to play a crucial part in phase movement (Heslin & Dunphy, 1966). Additional consideration is required of the type of task presented and its affect on phase movements. Bales specified that the task should be one in which "the functional problems of orientation, evaluation and control are each to a major degree unsolved at the beginning:

...such that with regard to orientation members have some degree of ignorance and uncertainty about the relevant facts ... with regard to the problems of evaluation ...the problem not be an "open and shut case" ...and with regard to control ... there be both pressure for a group decision and the expectation of further joint action ... When problems lack or greatly minimize any of these three characteristics, we speak of them as being "truncated". When the three characteristics are present, we speak of the problem as being "full-fledged". (p. 487)

Under such conditions as those outlined above, the phase hypothesis should hold. In review it would mean that groups who satisfy the conditions and limitations imposed by input variations, and whose task is such that the problems of orientation, evaluation and control are not truncated, should pass consecutively through these phases of orientation, evaluation and control with consequent expansion in the frequencies of negative and positive reactions. Figure 5 portrays a graphic representation of such expected conditions of group development.

FIGURE 5

Relative Frequency of Acts by Type and Phase
Based Upon 22 Sessions (Bales, 1951)



In the phase hypothesis, groups are expected to pass through these phases of orientation, evaluation and control. It is noted by Bales that these particular phases are directly related to the task or instrumental problem. The consequence of dealing with this instrumental problem is a corresponding increase in frequency of positive and negative reactions of the group membership over time. In other words attention paid by the group to the task causes a series of changes in the social-emotional balance of the group. This is a response to "pressures arising initially from demands of the external problem or outer situation (1951, b p. 489)". The phase hypothesis describes a circular process set in motion by an initial focus upon the task dimension. As a result of this early attention the tensions caused by altering the social and status arrangements of the members in order to deal with the task results in a corresponding build-up of affect which is released both through positive and negative behaviour at an increased rate. The phase hypothesis is testable and its applicability to the present study will be examined in later chapters. According to the hypothesis the task associated behaviours of the group are in a direct relationship to the social-emotional behaviours of the group; or the socio-emotional behaviours of the group seem to be a function of the amount of task related behaviour such that a rise or decrease in the task behaviour

(socio-emotional behaviour = f (task behaviour) brings about a change in the socio-emotional index of behaviour.

This is an over-simplification of the equilibrium model of group development as postulated by Bales (1951). Any disturbance or change, or imbalance in the social system of the group creates a state of tension, followed by an attempt to correct the imbalance and restore the system to its previous condition of "equilibrium" between a task and social-emotional balance. The social system of the group is one of action-reaction, evaluation-re-evaluation and an emphasis upon the consequences of action determining its reoccurrence.

In instances where such equilibrium is not established in small groups, and it can be seen that a number of causes could generate such disequilibrium, members of the social system are subject to insecurity and will act to remove it by adaptive-instrumental activity (Bales, 1950, p. 138). Adaptive-instrumental activity is aimed at focusing on the task dimensions and trying to adapt them to fit external realities outside the present social system which is now in disequilibrium. If attempts to alleviate the disequilibrium are not successful and insecurity persists there is a rise in expressive-malintegrative behaviour within the social system. This expectation that failure to solve task-adaptive crisis will lead to malintegrative

behaviour, is repeated in each of the phase hypothesis problem sequences. In other words, if members of the group cannot successfully cope with the orientation, evaluation, control phases and the members are unable to co-operate, the expressive and malintegrative behaviour will rise. By expressive-malintegrative behaviour is meant the use of fantasy, withdrawal, aggression, and other more pathological forms of coping with affect. This behaviour is in an anti-task, and anti-social direction.

A number of indices have been generated by Bales to try and put the concepts of "phase" and "equilibrium" to the empirical test. Theoretical formulations derived from the hypothesis and their implementation in the form of indices based on the various categories, are discussed in the following pages. Hypothesis I is concerned with communication (orientation), II with evaluation, III with control over the outer situation, and IV with control of activity within the system.

Hypothesis I is stated as follows (Bales, 1950, p. 138):

Unless the members of a group are able to establish adequate, continuing perception of the situation and communication with each other, they are unable to cooperate, and hence are subjected to insecurity and will react to remove this insecurity by adaptive-instrumental activity. Insofar as this is successful the solution will tend to be institutionalized. Insofar as these attempts are incomplete, inadequate,

or unsuccessful, the persisting insecurity result in express-malintegrative behaviour.

The rate of activity in Category 6 may be taken as an index of the amount of interaction which the group actually devotes to attempted solutions to the problems of perception and communication, whereas the rate of activity in Category 7 may be taken as an index of the amount of interaction which the group actually devotes to indicating to each other that such problems do exist. While neither of these two rates give any indication as to the adequacy of the communication, the ratio of the two categories should. For, we would assume that when requests for orientation in Category 7 build up without a comparable increase in Category 6 which provides the answers, the imbalance for the moment is unfavourable. An Index of Difficulty of Communication might then be written:

$$\text{Index of Difficulty of Communication} = \frac{7}{7 + 6} *$$

Values calculated by this formula will be in the form of decimals, such that the value increases so does the difficulty of communication, and vice versa.

The second part of the hypothesis states that as adaptive-instrumental attempts to solve the problem of

* The symbol +, can be read as "and".

communication are incomplete, inadequate, or unsuccessful, the persisting insecurity will result in expressive-malintegrative behaviour. The index consists of the balance between Categories 10, 11 and 12 on the one hand, and Categories 1, 2 and 3 on the other. This could then be written as:

$$\text{Index of Expressive-Malintegrative Behaviour} = \frac{(10+11+12)}{(10+11+12)+(1+2+3)}$$

Now, if the Index of Difficulty of Communication is accepted as evidence of a failure or inadequacy of communication, we would expect the Index of Expressive-Malintegrative Behaviour to vary in the same way. That is, we could say that as the Index of Difficulty of Communication increases, the Index of Expressive-Malintegrative Behaviour will also tend to increase. We could therefore write:

$$\frac{7}{7+6} = f \left[\frac{(10+11+12)}{(10+11+12)+(1+2+3)} \right]$$

Hypothesis II states that (Bales, 1950, p. 142):

Unless the members of a group are able to establish adequate, continuing evaluation and inference as to what they consider valuable, desirable, right, proper, moral, beneficial and likely about the situation and about their activities as addressed both to the situation and to each other as persons and as solidary sub-groups, they are unable to cooperate and hence are subjected to insecurity and will react to remove this insecurity by adaptive-instrumental activity. Insofar as this is successful, the solution tends to be institutionalized. Insofar as

these attempts are incomplete, inadequate, or unsuccessful, the persisting insecurity will result in expressive-malintegrative behaviour.

Following from the method used for the preceding hypothesis, it is clear that the second pair of categories, concerned with problems of evaluation, can be used to yield an Index of Difficulty of Evaluation, thus:

$$\text{Index of Difficulty of Evaluation} = \frac{8}{8+5}$$

This index is also assumed to be related to the Index of Express-Malintegrative Behaviour in a way similar to that of the preceding index. That is:

$$\frac{8}{8+5} = f \left[\frac{(10+11+12)}{(10+11+12)+(1+2+3)} \right]$$

Hypothesis III (Bales, 1950, p. 143):

Unless the individuals in a group are able to apply their efforts and skills to a degree and in a way which is actually effective in producing changes in the situation, and to the degree that their efforts are not so efficient as they would like, or feel they should be, they will be subjected to frustration or deprivation in varying degrees, and will react to remove this insecurity by adaptive-instrumental activity. Insofar as this is successful, the solution will tend to be institutionalized. Insofar as these attempts are incomplete, inadequate, or unsuccessful, the persisting insecurity will result in expressive-malintegrative behaviour.

Using the same reasoning as before, the Index of Difficulty of Control over the outer Situation may be written (Bales, 1950, p. 144):

$$\text{Index of Difficulty of Control over Situation} = \frac{9}{9+4}$$

Once again it is assumed that this index is related to the Index of Expressive-Malintegrative Behaviour as follows:

$$\frac{9}{9+4} = f \left[\frac{(10+11+12)}{(10+11+12)+(1+2+3)} \right]$$

Hypothesis IV (Bales, 1950, p. 145):

Unless individuals in a group are able to exercise control over their cooperative efforts in an integrated way on the one hand, and on the other, unless they are able to maintain a delicate limitation as to the degree and circumstances under which particular members of sub-groups exert their potential power over each other through suggestion, persuasion, relative prestige, fraud, coercion, or physical force, they will be unable to cooperate successfully or to satisfy their own needs individually, and hence are subjected to insecurity and will react to remove this insecurity by adaptive-instrumental activity. Insofar as this is successful, the solution will tend to be institutionalized. Insofar as these attempts are incomplete, inadequate, or unsuccessful, the persisting insecurity will result in expressive-malintegrative behaviour.

It is proposed that the Index of Directiveness of Control for the total action stream be based on the preponderance of acts in Categories 4 and 5 in the total process as compared to Category 6. This follows from the

assumption that Categories 4, 5 and 6 are arranged in order from the most directive to the least directive. Thus, the index may be formed as follows:

$$\text{Index of Directiveness of Control} = \frac{4}{4+6} + \frac{5}{5+6}$$

It is expected that the relationship of this index to the Index of Express-Malintegrative Behaviour will be similar to the previous cases, hence:

$$\frac{4}{4+6} + \frac{5}{5+6} = f \left[\frac{(10+11+12)}{(10+11+12)+(1+2+3)} \right]$$

overall index =

$$\frac{7}{7+6} + \frac{8}{8+5} + \frac{9}{9+4} + \frac{4}{4+6} + \frac{5}{5+6} = f \left[\frac{(10+11+12)}{(10+11+12)+(1+2+3)} \right]$$

Summary: Bales three hypotheses of (i) "nested" phases, and (ii) the equilibrium of task and social-emotional group interaction have been outlined. A number of indices were described which will be used to test these two special hypotheses. At this point an additional hypothesis of group development will be described and the corresponding indices of this hypothesis provided.

Role Differentiation in Group Development

Changes in the functional problems of the group which are encountered during the establishment, maintenance, or dissolution of phases result in a variety of social relationships being established. Initially the group is concerned with task, and social emotional concerns. As

a result of this, the first "generation" of social relationships arises from this dichotomy. The most basic roles are those of the respective task and social-emotional "leaders". Since leadership is a vague, frequently undefined cliché for kinds of role behaviours such as, excessive talking, being verbally aggressive, domineering, controlling, directing as in the case of the task leader and of helping, soliciting, patronizing, scolding, on the social-emotional side, it can be seen that many other roles could be broken off of these two "catch-alls".

For Bales the differentiation of roles is a branching structure with its origin in the task and social-emotional problem situations encountered by the group. It is also dependent upon the equilibrium established in the group life. As the particular problems of integration, adaption, instrumentation and expression become the focus of concern for the group members, the members meet such pressure by nominating individuals to adopt specific social roles. As a consequence of the responsibility and risk associated with such group role performance, the member who characteristically accepts the group's nominations during a particular problem stage will find an increase in status and power as incumbent of the role. Of course as this same members' performance becomes less and less important, with the movement of the group either back to equilibrium or into a new phase and problem of its resolution, the

member will find his status decreasing and his influence having less impact.

With the movement of the group through a number of phases, with various functional problems encountered, there may be numerous different individuals who have figured prominently at one time or another. Depending upon whether numerous different social roles are established or a minimal number of persons are able to provide satisfactions for the group the resultant culture of the group will fluctuate. It may become more or less formal, more or less solid, and bounce from democracy through patronage to autocracy during its lifetime.

The performance of particular roles become "crucial" to the future success or failure of the group. Bales has said, with regard to the balance of favouritism in the group that there is the institutionalization of a certain "indifference", "impersonality", "impartiality" as an explicit obligation in the performance of certain roles (1951 p. 154). The need for such institutionalized roles seems to be triggered by the difficulties of maintaining a balance between positive and negative, and between work and pleasure. Any extreme variation in either direction works as a strain. The strain in the direction of excess work (task), for example tends to bring in a counter-reaction from those more concerned with pleasure (socio-emotional). The strain in favour of pleasure results in a

counter-reaction on the side of the workers who are frequently in conscious or unconscious league with the group trainer. The resultant balance or "equilibrium" seems always to be toward a communality and equal distribution of status, power and integration among the membership. The group seems aware at all times that any malfunction in the social system is a threat to all present. As a result there is a perpetual zig zag between adaption with the external situation at the expense of personal feelings and the pacification of personal feelings at the expense of the achievement of any task. The breakdown of role structure corresponds dramatically with the history of this conflict.

As in the case of the "phase" and "equilibrium" indices which were generated by Bales to test the theoretical premise behind his task-social-emotional dichotomy there are various indices developed to put the "role hypothesis" to the empirical test. Bales has proposed that besides the task and social-emotional equilibrium, the group strikes a precarious balance between the resources available to be controlled, and those who are in control, as against the controlled; the power available for action and those who are in possession as against those who are submissive; the available status and those who are high in status as against those who are low in status; the obligations for membership (norms) and those who accept as against those

who are deviant; the positive feelings aroused by some members as against the negative feelings aroused by other members; the task performance of some members as against the non-task performance of others. Bales has described it such that;

" in the process of action persons as concrete entities tend to become related to each other in affective, and instrumental relationships, so that one person expresses what the other person would like to express, the activity of one person becomes the stimulus to or the object of affective reactions of the other person, or one person becomes a means to ends of the other person ...as interaction proceeds these kinds of differentiations tend to become "stabilized" in terms of "generalizations" based on past activity of the person and "expectations" based upon the projection of these generalizations to future activity .. there is a tendency for certain aspects of these expectations to become more explicit as to content and "legitimized" in such a way as to exert pressures against deviance from the norms so developed."
(1951, pp. 70-72)

The whole group interactional system is bound in an "equilibrium" matrix as subject to the laws of such a structure.

The indices available to describe such role diffusion are those of the:

- (i) BR index of "indirect access to resources". This index provides some evidence of the extent to which the questions of any individual (i) in the group are answered, as compared to that of other members of the group. In this way it could be demonstrated that person (i) had more or less access to available resources than his peers. The index uses the results of the IPA analysis to arrive at a measure of such access to resources.

$$\text{BR index} = \left(\frac{\bar{b}_i}{\bar{b}_c + c_i} \right) \times \left(\frac{\bar{b}_i}{B} \right) \times 100$$

where b_i = number of act received by person i in section B of the category system (categories 4, 5, 6)

c_i = number of acts initiated by person i in section C (categories 7, 8, 9)

B = number of acts initiated by the whole group in section B.

- (ii) CR index of "direct access to resources". This index answers the question: "of all the acts on section C (questions), what proportion did individual (i) receive?"

$$\text{CR index} = \left(\frac{\bar{c}_i}{C} \right) \times 100$$

where c_i = number of acts received by individual (i) in section C (categories 7, 8, 9)

C = number of acts initiated by the whole group in section C (categories 7, 8, 9)

- (iii) ADR index of attempted control. This index answers the question: "to what extent were the attempts of individual (i), answered positively instead of negatively, compared to other group members?"

$$\text{ADR index} = \left(\frac{b_i}{B} \right) \times \left(\frac{\bar{a}_c}{\bar{a}_c + \bar{d}_c} \right) \times 100$$

where b_i = number of acts initiated by individual (i) in section B (categories 4, 5, 6)

a_i = number of acts received by individual (i) in section A (categories 1, 2, 3)

d_i = number of acts received by individual (i) in section D (categories 10, 11, 12)

- (iv) Generalized Status Index = $GS = \frac{CR + BR + ADR}{3}$

This index gives a composite view of the "overall" status of any particular group member in relation to other group members. It combines the direct and

indirect access to resources and the index of attempted control and averages their sums.

These indices will be later used to empirically test the extent to which Bales' hypothesis of role differentiation seems to hold for the learning groups used in this study.

Summary:

The hypotheses of (i) "nested" phases, (ii) equilibrium of task and social-emotional interaction, and (iii) role differentiation in the small group have now been outlined and their associated indices described. Bales' concept of three dimensional space, (outlined briefly on page) has not yet received a sufficient discussion. In this regard the following chapter attempts to place the concept of a three-dimensional "group space" in the better perspective in terms of (i) its relationship to the three previous hypotheses, and (ii) its unique contribution to the descriptions of "power distribution" in the small learning group.

As a method of logically developing these two points the following chapter discusses the concept of "power" in the group, and the acquisition and distribution of such group power.

CHAPTER 3

THE DEVELOPMENT OF POWER RELATIONSHIPS IN THE GROUP

Power is most frequently defined as the ability to influence or control another person's behaviour. (Collins and Guetzkow, 1967; Mislner and Waxler, 1968). The influence of one person over another in a group situation is not quite so easily arrived at as this definition suggests. For one thing, what constitutes influence? How is influence related to power? How can we tell when one person's influence is reflected in the action, or the inactivity of another group member? To what kinds of behaviour do we need to tune in to discover this power in operation? Does an individual have to display power before we can attribute him as an influence to group members? Or can he be just as influential by saying and doing very little? How is power distributed amongst the members of a group? What are the factors which operate to redistribute power? Having located sources of power how can we measure them?

What constitutes power?

In this chapter we will attempt to provide answers to these, and other questions.

We can begin with the question of what constitutes influence, or control, over another person's behaviour.

One obvious way in which one person can influence another is by talking. Talking is a resource which can be used by a group member to draw out strategic points in his favour. Antithetically he can also find his talking working unfavourably. So verbal behaviour is a source of both positive and negative influence. The greater the degree of sophistication of the group membership the more valuable is the resource of talking. By this is meant that in college groups, in opposition to groups of labourers or a group in a tavern, the ability to talk intelligently and rationally may make it easier to win friends and influence people. In the latter groups the ability to react physically rather than verbally may be the more accepted means of influence. So physical prowess is also a resource for influence.

In our everyday life we become influenced by monetary rewards. It gets us what we most frequently want and it often ingratiates us with those who have less. Money is power! Also falling into this sort of everyday category are such material goods as expensive clothes, snappy automobiles, and class women! In each instance these are resources from which we can influence other people.

In a small task group situation these count for

considerably less, since in the small face to face laboratory group valuable resources may become considerably more defined. If group membership is constituted of college students then one can become even more definitive. In such a situation perhaps the most prized possession is the verbal fluency mentioned earlier. Following closely behind may be various personality qualities such as a warm and non-negative approach to people and an ability to withstand criticism. In experiences with small groups it seems that if one can put on this particular "front" even though one may not mean it entirely, it will stand one in very good stead.

Another powerful resource in face to face groups is time. The individual in the group who can acknowledge that there is only one hour or less to accomplish whatever his personal objectives may be is like a shark in a school of mackerel. This individual can adopt a strategy to make use of time to his advantage. If he is a verbally fluent individual as well, he practically has the floor to himself in the early life of the group.

This is true of the early life of the group because early influence becomes redistributed over time and personal qualities of interaction often become more primary resources as the group meets for more than a few occasions. Although the high interactor with the knowledge of the

timed group meetings starts off with a lead in the race for power, he will find he needs more than these two assets to stay on top.

What are the Behavioural Correlates of Power?

Power then is constructed from the ability to make use of various resources. Each individual in the group has an accepted amount of resources; or at least an equal opportunity to have access to such resources. The distribution of power in the group, over and above the acknowledged base level of resources within each member, will depend upon the utilization of these same resources. The strategy or behavioural techniques used to maximize the available resources, either within the individual, or free floating in the task and affective concerns of the group, will bring about the power and role distributions within the group. The longer the life of the group the more opportunities there will be to gain or lose power. The longer the life of the group the more often shifts will occur in the balance of power and in the availability of needed resources.

This brings us to the need to inquire about behavioural strategies used to acquire available power. Mishler and Waxlwer (1968) have divided such strategies into two basic group approaches. (1) The attention-control

strategy and (2) the person-control strategy. While Mishler and Waxler were most concerned with the analysis of family groups rather than face-to-face heterogeneous (mixed) groups, their analysis of these two particular styles of interaction have a considerable overlap with small group behaviour in general. The unique feature of the attention-control strategy is that it makes use of verbal techniques to achieve power. In association with the time limit under which most groups operate the controlling technique of high talking rate is very powerful. The power comes from (a) preventing others from having the floor to use their particular strategy; and (b) maintaining group attention so as to avail oneself of other control techniques like giving orders and engaging in arguments (1968, p. 121).

The person control strategy consists mainly of (i) interrupting others who have the floor, and (ii) asking questions. By interrupting others the individual can prevent others from fully exercising their power strategies and this undermine their influence. Asking questions has the same effect but is less direct. It does have the effect of controlling the content and direction of the interaction. Some individuals in the group can use both attention control and person control strategies in association. It is the contention of Mishler and Waxler

that the use of attention-control is an interaction device preliminary to and generally necessary for the other power techniques (1968, p. 121).

Another strategy with which power is exercised in a more subversive fashion is through the use of silence. If a person can establish this position as frequent initiator who can be relied upon to relieve the monotony whenever it sets in he can then choose to work both sides of the street! Future high participation achieves power through attention control and corresponding silence achieves similar power through the attention received from other members who desire to know why the initiator is suddenly silent. In a similar vein Bales (1950) has described the behavioural strategies of the task leader and the social-emotional leader. These two strategies will be discussed in some detail a little later in the chapter.

The Distribution of Power

When the group is first convened the members have expectations about what might happen in the life of the group. There may be a considerable difference between what their personal expectations are and the expectations of the trainer of the group. Regardless of the magnitude of discrepancy of expectations it becomes the responsibility of the trainer to communicate as explicitly as is

possible in the circumstances (since he must also be concerned with not violating or hampering the expected learning outcomes) what can realistically be expected to happen in their time together. If the kind of group which convenes is a special one, such as in a therapeutic setting, the personality structure of the membership defies the closure of this expectancy gap or "credibility gap" between leader and member. When the learning outcomes of the group are such that the way in which the trainer defines his own expectations becomes a crucial source of influence then this can also serve as a further handicap to closing the "expectancy gap". We have in mind the self-analytic experience. In this type of group the members (perhaps unaware to this point), come face to face with the issues of authority, lack of closure, ambiguity and normlessness. If the trainer provides some special personal warmth, evidence of closure or some expected "norms for behavior" in his opening comments then the learning outcomes for these members have been violated. In fact these violations may later serve as vehicles for antagonism since the trainer has provided conditions under which this particular anticipated learning structure for the group cannot be established. There cannot be ambiguity about the "task" if it becomes explicitly defined. There cannot be an authority vacuum if the trainer immediately assumes responsibility in his opening remarks.

In other group situations such as the direct communications training or more common "sensitivity training" these concerns which were prominent in the self-analytic experience are not so important. The training "outcomes" for the direct communications group are very different. The emphasis here is on a "structured learning" rather than on an "unstructured learning". To provide this structured learning the trainer becomes a model for the sorts of conditions he is trying to bring out in the other members. The members are also provided with didactic anchorages in the way of books, exercises, role-playing, practice sessions and so on. While the norms for group behaviour are somewhat ordered through a modelling of the trainer, such early trainer initiated comments as "we are here to help each other and to provide constructive criticism about how we are doing" or "each of us will take a turn in the spotlight and we have to share the responsibility for learning among ourselves" or "we will use the feedback from each other as a help to learning these particular communication skills", provide conditions which are designed to build in the cohesion, affection and task-oriented activity of the members. In the self-analytic experience the opposite is more true. This returns us to our initial question: How does this effect

the dispersion of "power" among the group membership?

We would expect that the more the trainer of the group succeeds in satisfying the initial expectations of the members the less will be in dispersion of power in the group. In this regard it could be anticipated that the self-analytic experience leaves more room for control struggles, unsatisfactory affective experiences and non-task oriented behaviour among the group membership. The group is left purposely in a control vacuum and the focus of responsibility for satisfying the briefly outlined task is almost entirely in their hands. To achieve, at least to some extent, the understanding of what goes on around them the members must structure their surroundings in such a way as to best facilitate this. Their feelings about the situation however frequently get in their way. In fact their feelings predominate over any idea of working toward the task. Most often the membership becomes somewhat divided on an affective-instrumental plane. Burke (1967) has defined such a divided situation as one in which high task participation is not legitimized by the social circumstances. It is not easy for any member to engage in task participation to any great extent because the trainer has failed in meeting the expectations of the other members. The prevailing agenda is such that the trainer should provide more information and soothe

feelings before the members continue. Burke has further outlined that under these conditions of low task legitimation the role differentiation of the group becomes expanded to help provide closure in this very unequal situation. This is in line with the initial prediction made somewhat earlier in this chapter. The dispersion of power should be greater in the self-analytic group.

Although in both the self-analytic and direct communications experiences the task is actually set by the experimenters the membership of the direct communications group is "in league with the trainer" in establishing the conditions under which the task will be achieved. This is a situation of high task legitimation and provides less conflict in the instrumental-affective plane. Hence we would expect less role differentiation in such a group.

Other methods of arriving at the way in which the power of the group is spread out among the various members is to take more unobtrusive measures of such dissemination. Burke (1965) concerned himself with measures such as degree of antagonism, tension, and absenteeism which occurred when the leader failed to provide the structure demanded by other group members. He termed such behaviour as disruptive behaviour and further found that the degree of such behaviour was a function of type of group involved. For

example, if the group was non-directive in orientation and had low task legitimation this disruptive behaviour was at its maximum. When the group was directive in orientation and task behaviour was considered a legitimate activity for members when the disruptive behaviours of antagonism, tension and absenteeism were at their minimum. Various indications of the resultant effect of high and low amounts of disruptive behaviour on the power distribution of the group were then considered by Burke. The greater the disruptive behaviour the more unequal the participation rates of the members and the more differentiation among various roles. The more task participation is legitimate the greater the necessity for a social-emotional specialist to drain off the negative feelings that are held toward members who are task oriented. This position is a continuation of an earlier hypothesis by Bales and Slater (1953) that when the necessity for a social-emotional specialist occurs in a group there is a further need among the group membership to castigate or punish the task specialist. Since the task specialist is serving a valuable function in the group, however, and is in a powerful position with respect to the trainer he is somewhat invulnerable. He allows for the phenomena of scapegoating, where a lower status member who often has some association

with the task specialist is singled out as the target for this excess negative feeling which is not drained off by the social-emotional leader.

One can see how conditions of low task legitimation has a tendency to complicate the role differentiation and power distribution of the group. The terms "power struggle" or status struggle" are used to describe this situation. This can cause difficulties in the desire of the task specialist to satisfy any of the social requirements of his job. His power is drained off in competition with this other member and reduces his affective contributions. It further leads to a redistribution of votes among other members in dealing with this situation in favour of one member or the other and reactivates the scapegoating of lower status members as an attempt to satisfy the negative feelings which members may have towards these two competitive and unpopular members.

Burke (1969) has adopted the position that scapegoating the role differentiation are alternative responses to excessive task activity on the part of the task leader when there are conditions of low task legitimation. Whether scapegoating occurs on further role differentiation results in dependent upon (1) whether there is a good candidate available for scapegoating; such as a member with a personal characteristic in addition to his lower

status which causes him to be singled out, (2) whether there is an individual who has the personal characteristics to assume affective or socio-emotional leadership and extend the role differentiation, (3) or whether the task leader tends to be supportive of the low status member.

It seems that scapegoating is further role differentiation even though it may operate as a different response to groups operating under these particular conditions. The argument seems to be whether scapegoating does, or does not occur, but not whether it is role differentiation when it does occur. The scapegoat may be absent in certain groups because the task leader leaves a convenient avenue open for accepting hostility and a scapegoat isn't necessary. Or the scapegoat may be absent when the trainer of the group displays the conditions of openness toward criticism and an acceptance of hostility and can bleed off the negative feelings which may exist in excess among the members. If the scapegoating mechanism does not occur then role differentiation has been curtailed to some extent. If it does occur then role differentiation has simply been extended and the group has experienced a redistribution of power as a result.

One particularly interesting aspect of the power distribution in small groups is the activity of the absent member. Frequently in experimental groups at least, at

the most inconvenient time a member will miss a session. The experimenters will often have developed elaborate and secret hypothesis about what will happen on this group occasion and the missing member syndrome will foul things up. What experiments often fail to realize is that this is not an inconvenient move on the part of the absent member. Very rarely is there illness or a serious reason for not being at the session. More frequently it is a lame excuse. The result on the power distribution in the group however is often awesome. Miller and Rice (1967) have described this situation in very interesting terms.

"If, while a representative (member) is absent, the group is inactive, this means that all group activity is rested in the representative; and the group as a group is rendered impotent. Its leadership is being exercised by the absent member. If, on the other hand, the group remains effectively active while the representative is away and as a result of its activity grows and develops, then this means that the representative represents only the past, and his "leadership" as expressed in relation to the environment is diminished. He no longer represents the group as it is, but only as it was."

This idea of leadership being exercised by the absent member seems outlandish. How can a person lead a group when he is not even present? Let us examine two diagrams of

a small learning group which experienced just such a situation.

Figure 6 SAT₂ SESSION 8

Figure 7 SAT₂ SESSION 9 - Betty, Tom (missing)

In the first diagram we can see that Betty is the most disliked member of the group. She receives acknowledgement of this from almost every member in terms of their votes on the sociogram as the member they "feel farthest from". In the second diagram which is the following session of this group, Betty is absent from the group. Here there is a drastic redistribution of power within the group. In fact the result is especially surprising in that there is an almost total lack of leadership on any of the dimensions of control, task, positive and negative affection. Betty has taken the controlling power away with her! The group is enervated. Only Joan remains with any considered amount of influence at all and this is a meagre and minimal amount. This is the point which Miller and Rice were making and which seemed quite unrealistic at the outset. In trying to understand the power distribution of the group then it is crucial to concern oneself with the members who are not there as well as those who are there. Various examples could readily be provided to show that when members who are initially without influence in the group are absent

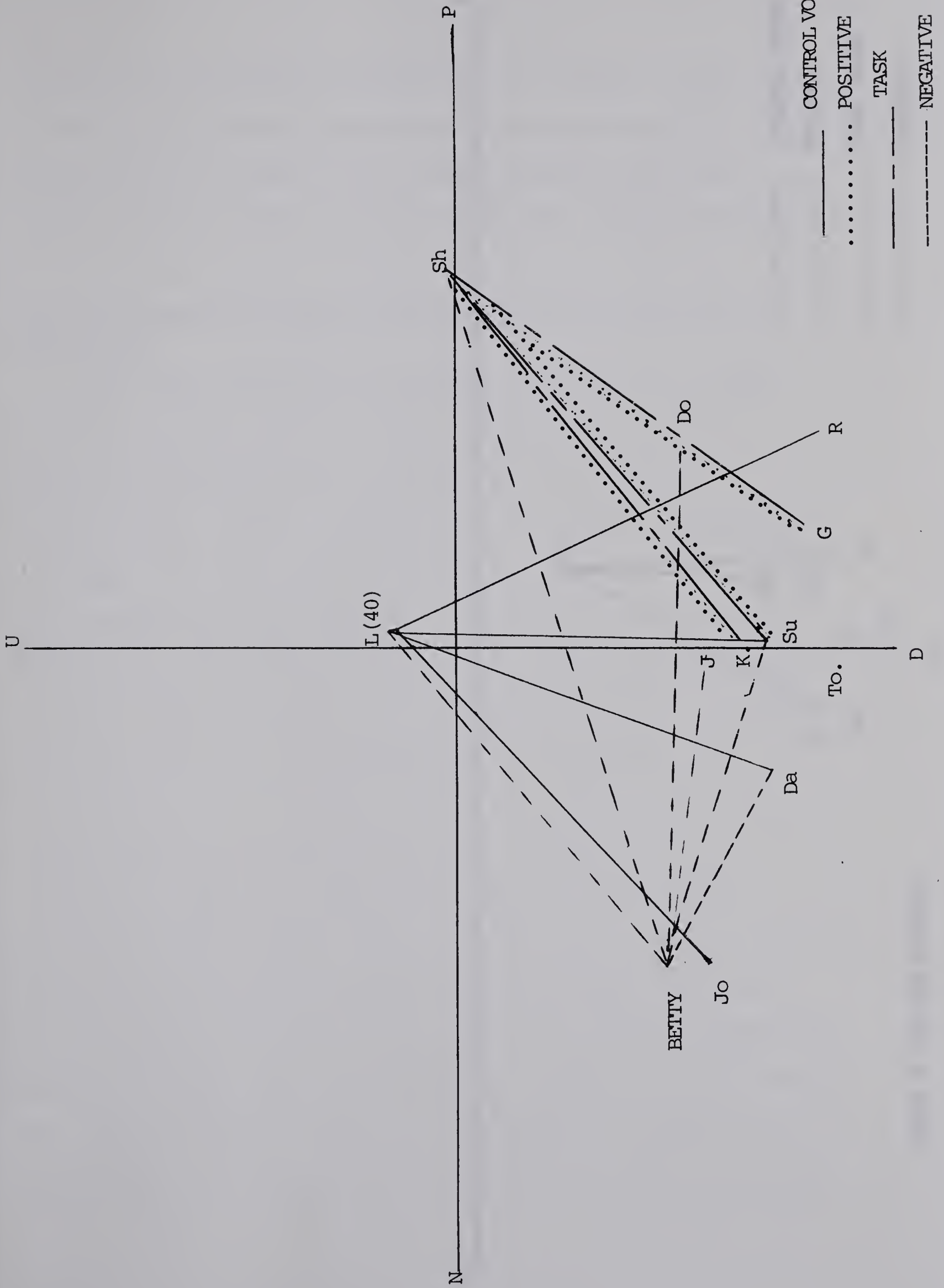
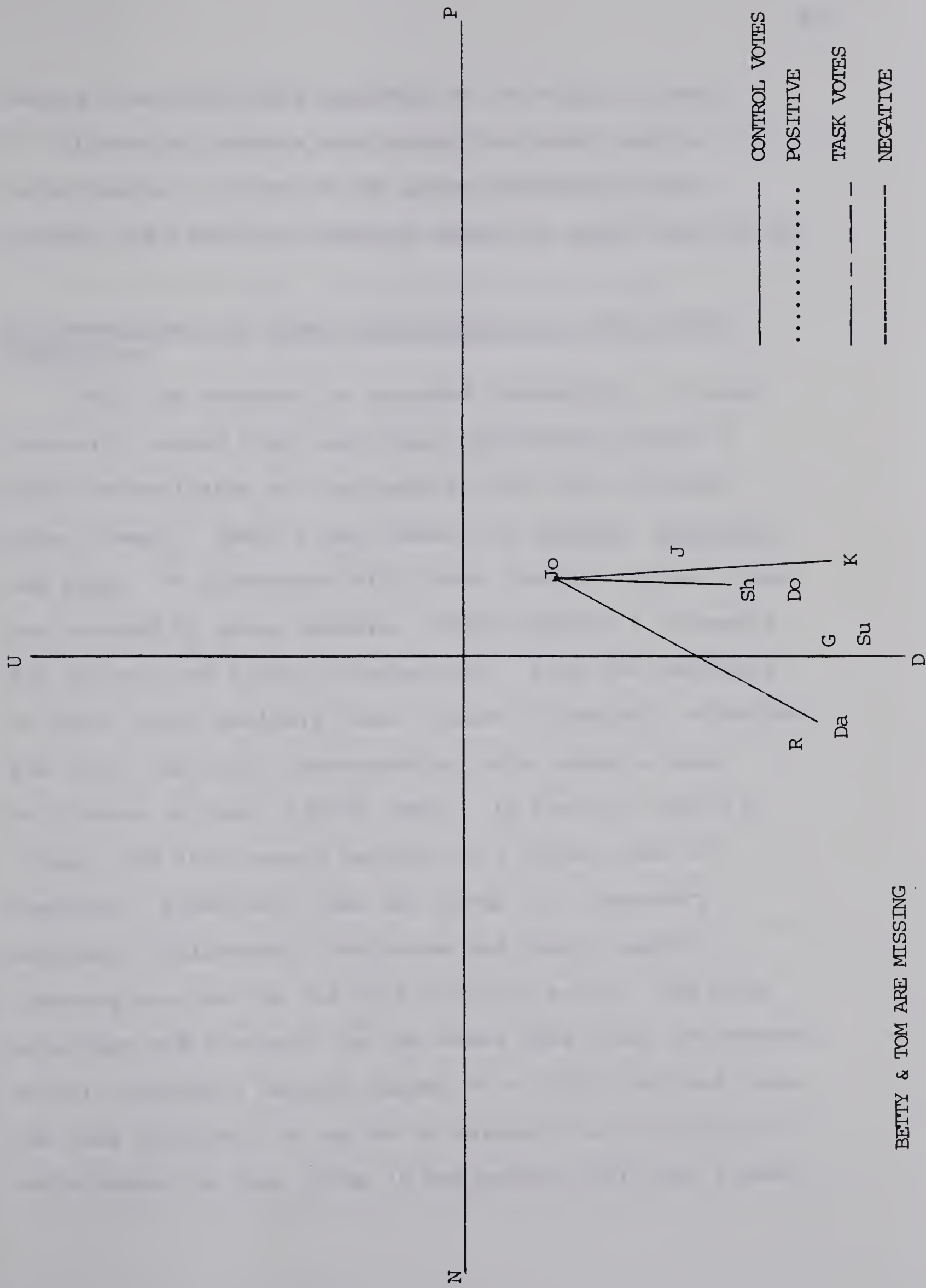


FIGURE 7. THE DISTRIBUTION OF POWER IN GROUP SAT₂ AFTER SESSION NINE.



BETTY & TOM ARE MISSING

during a session their presence is not sorely missed. If influential members are absent the result may be catastrophic in terms of the power distribution and perhaps the resultant learning among the group membership.

The Development of Power Relationships on Three Group Dimensions

When the research is examined thoroughly, it seems generally agreed that individual performance within a group necessitates an involvement with three distinct group issues. These group issues are control, affection and task. To correspond with these issues, various roles are assumed by group members. These provide a framework for present and future interactions. From the periphery of small group analysis these issues of control, affection, and task, and their corresponding role demands, seem as distant as their labels imply. In reality they are closely and intricately related in a spidery web of confusion, especially when the group is a temporary, normless, deliberately ambiguous and highly anxiety inducing one such as the self-analytic group. The more structure and skeleton one can weave into group procedures; usually through a helpful leader or a highly defined task, the less difficult it may be to untangle the overlapping performances as they occur in conjunction with the issues

of control, affection and task.

To help decipher the tangled triple "code" of the group; and to help isolate the roles which individuals are performing within the code, various research workers have come to the rescue. Primary among these researchers are the names of R.F. Bales; Benne & Sheats; Couch & Carter; Dunphy; Moreno and Slater. Other workers have provided critical clues to the group interaction code (which is certainly not deciphered) but the above mentioned seem the most prominent. A quick review of relevant research might be in order at this point.

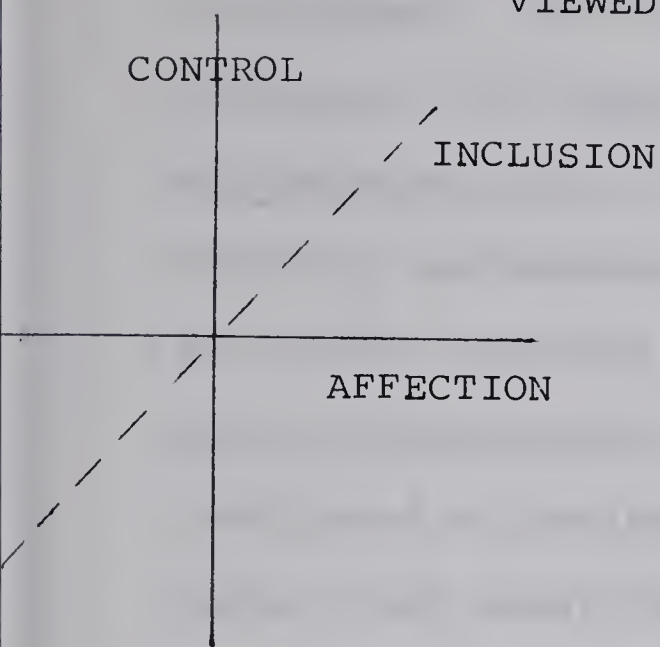
The first question might be "why are there three issues?" Why not one or two? Why not five or six? To find out what constitutes individual performance in the small group Couch (1960) and Carter (1954) used a factor analytic approach. They collected data on a number of small groups of various sizes and tasks. Simultaneously they collected trained observer's ratings of each of the group member performances. Tossing all the data together in the mix-master of factor analysis they arrived at a three factor description of individual performance. The three factors were: an individual prominence factor (control); a factor of group sociability (affection); and a factor of goal facilitation (task). Schutz (1958) also developed his description of group involvement around the

dimensions of control, affection and inclusion (task). Other group theorists and personality experts working independently, arrived at similar conclusions (See Figure 8). Since Couch and Carter's three factors were orthogonal (or at right angles to one another) this meant they could be described by a three dimensional space. R.F. Bales saw the value of this particular arrangement and developed a comprehensive personality typology to provide a more detailed picture of group member performances on these three issues of power, affection or task. For simplicity, Bales labelled his factors Upward-Downward (for greater versus less power), Positive-Negative (for good versus bad inter-personal relationship), Forward-Backward (for co-operative group task work versus unco-operative individual work). Using the three dimensions of Euclidean Space and six possible locations U, D, P, N, F, B, the Bales System provides 27 different personality descriptions or social psychological directions for group performance. This typology represents a major contribution to group process analysis and is part of a considerable effort made by Bales, and his associates at Harvard, to help describe the group process.

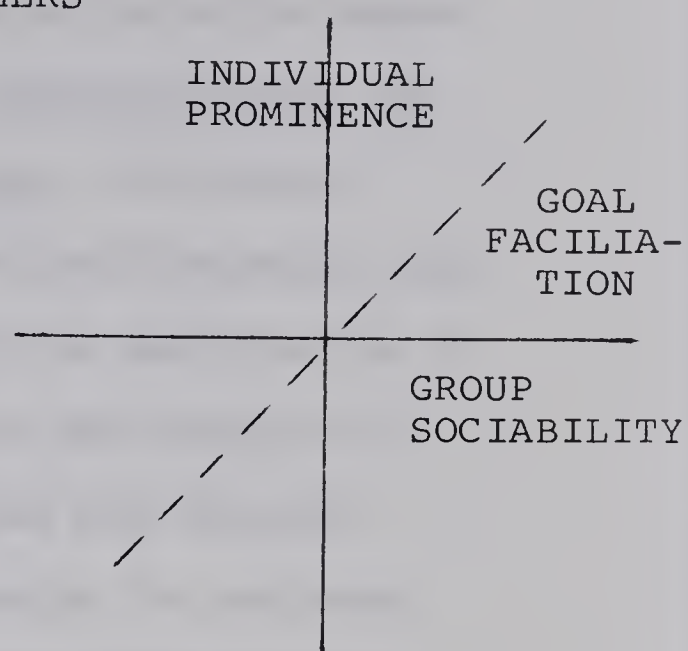
Benne and Sheats (1947), working mostly within the framework of NTL groups, also provide descriptions of group role performance (although much less descriptive

FIGURE 8

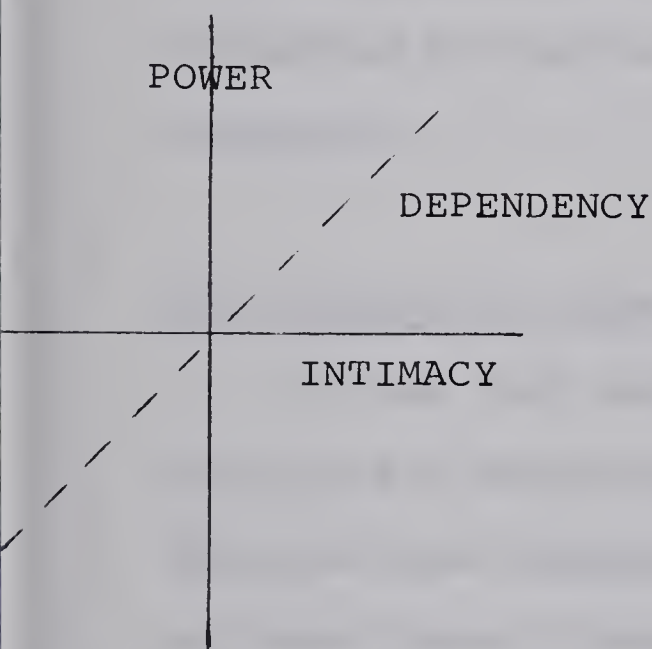
ASPECTS OF A THREE DIMENSIONAL GROUP SPACE AS
VIEWED BY VARIOUS RESEARCHERS



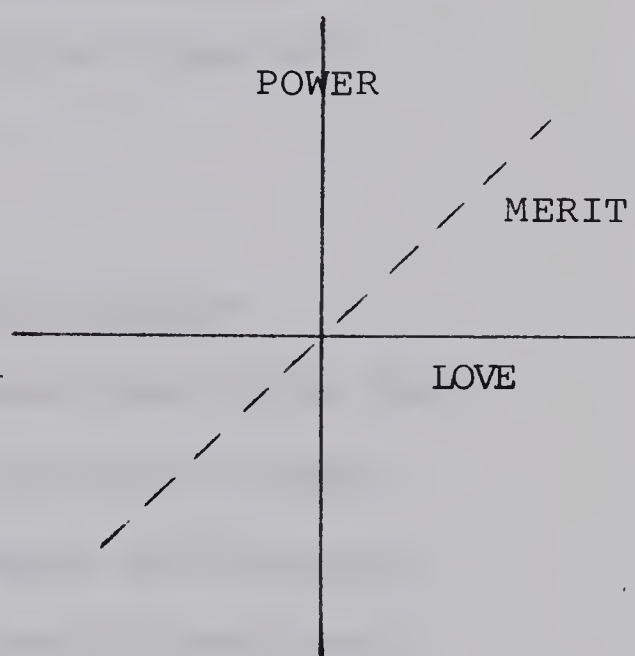
SCHUTZ (1958)



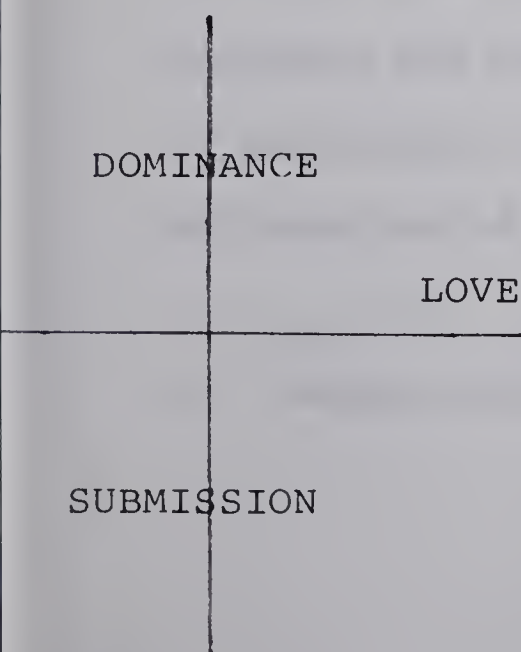
COUCH & CARTER (1954)



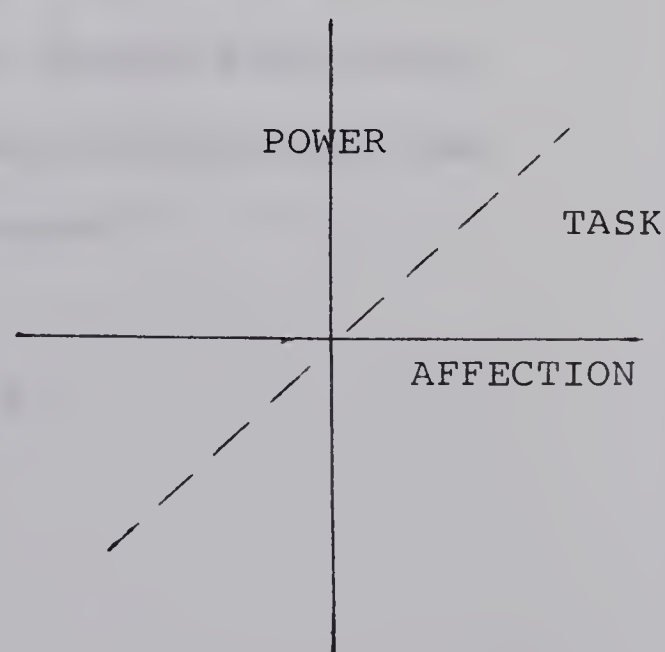
KAPLAN & ROMAN (1963)



ARSENIAN & SEMRAD (1968)



LEARY (1957)



BALES (1950, 1970)

than Bales). The roles they have observed exist on three continua: (i) individual roles, (ii) group building and maintenance roles, (iii) group task roles. The overwhelming correspondence between these three dimensions and the factor analysis of Couch and Carter; as well as the 27 social psychological directions of Bales can hardly be considered an accident. The three issues are already there; they exist for individuals in groups to confront. The various roles which appear when these issues are confronted as control problems, affective or task issues exist empirically. At least this is the conclusion suggested by the convergence of these three lines of research.

The Concept of Three-dimensional "Property Space".

It has just previously been mentioned that Bales had developed a comprehensive personality typology to help describe and conceptualize the group member performances on these three dimensions of power, affection, and task. The term "factor space" or the term "group space" as proposed has been inherited from factor analysis and Couch in particular, (1960); but used by Bales to facilitate the explanation of this three-dimensional space.*

* Bales, Personal Communication, 1971.

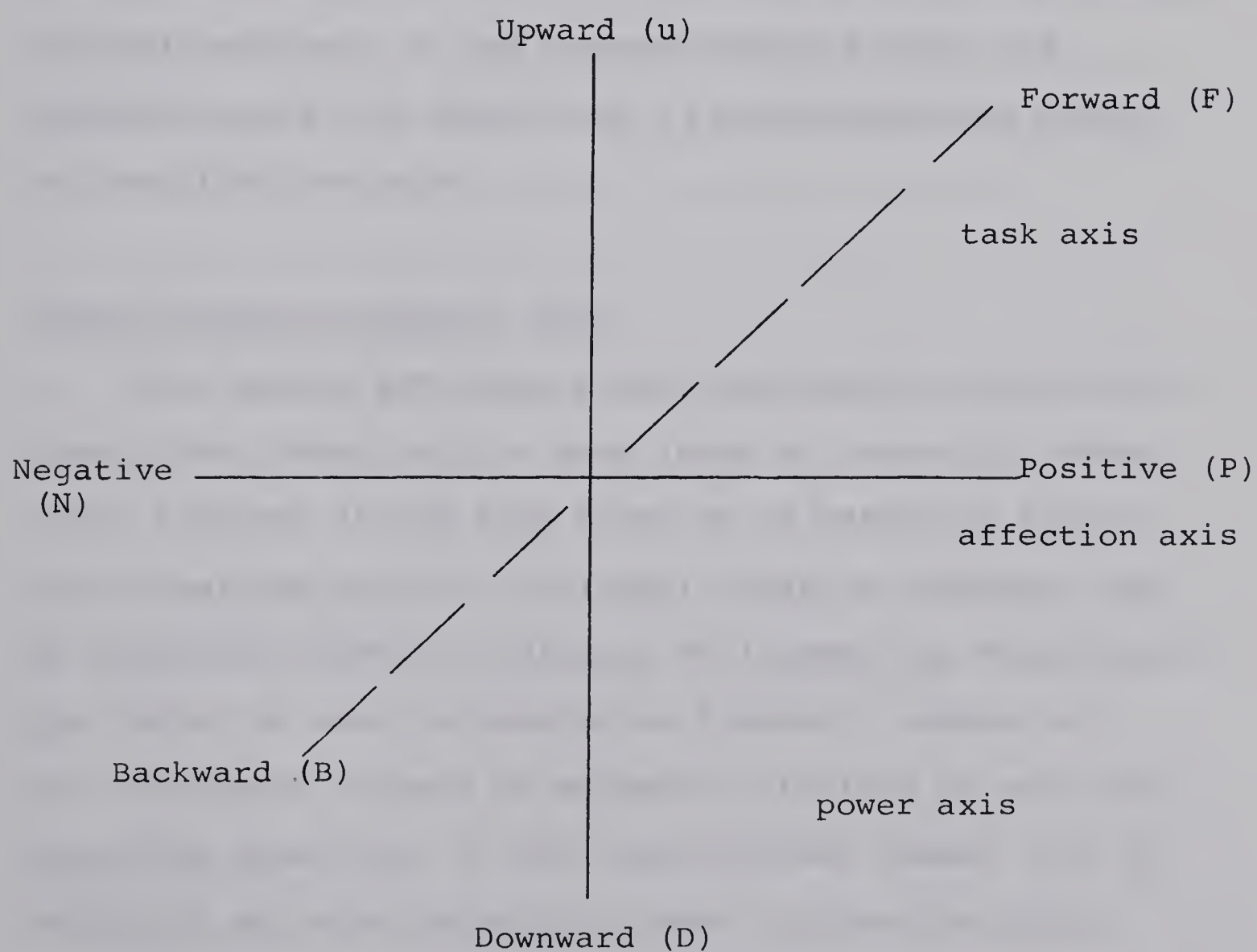
The three axes of the "group space" are visualized as (i) a power axis or social ascendance continuum which runs up-down, (ii) an affective axis which is a continuum between arousing unpleasant feelings in others to arousing pleasant feelings in others, and runs left to right, (iii) a task performance axis which ranges from valued task performance to deviant, unco-operative individual behaviour and runs forward-backward in space. (Figure 9)

Theoretically these axes are uncorrelated or "orthogonal". To be high, or low on any one axis should not influence one relative position on any other axis. To be a positive person in the eyes of other members, for example, does not ensure a high power location, or a forward task location.

It is possible to conceive of the three-dimensional property space as a 3 x 3 cube of 27 blocks. The block at the center is the intersection of all three axis and is the neutral position, and neutral role, of the group space. With this conception individuals can be classified into any one of 27 available blocks, or categories. A group member might be in an Upward-Negative-Backward position on the grid. In this sense he is considered as having power in the group but arousing unpleasant feelings in other group members as a possible result of the use of his power and he is being somewhat deviant and unco-operative in the solution of the present group task.

FIGURE 9

BALES' DESCRIPTION OF THE AXES OF THREE-DIMENSIONAL GROUP SPACE



A much more refined description of the UNB role typology is provided by Bales 1970. This very superficial description can give an idea of the guiding principles in the 3-D property space concept.

It should be emphasized that the detailed description of each 'direction' refers to individuals who are moving 'most strongly' in that direction. As an illustration, descriptions are given below of three adjacent 'upward' types (3): the Upward-Positive-Forward (UPF) member; the Upward-Positive (UP) member, who is in psychologically neutral territory on the forward-backward axis; the Upward-Forward (UF) member who is psychologically neutral on the affective axis.

Upward-Positive-Forward (UPF)

This person advocates social solidarity and progress; identifies himself with a good image of authority; shows great interest in the task given by an authority figure; over-idealizes positive feelings; tends to submerge, deny or transform negative feelings; will speak for equalitarianism (which he sees as meaning no dissent); speaks for the "orthodox" content of whatever religious or political belief he adheres to; is the inspirational leader, but on behalf of existing authority; tends to fuse the group together in a monolithic group solidarity for the sake of

"progress" rather than of individuals; tends to use a deductive method in solving problems (values first rather than an inductive one (facts first); is seen by others as interested in group task.

Upward-Positive (UP)

This person is concerned more about positive social relationships than about the realization of group norms or specific task accomplishment; he wholly identifies with the group and has a powerful and rewarding place in it; individuals respond frequently to him and express their ideas to him; he tends to take a position of leadership; his outlook is benign; he has an over-expanded image of his own success and omni-competence; he is seen by others as personally involved, and valuable for a logical task; he provides stimulus and rewards complementary to other members' task efforts, but a great deal of the actual work comes from them though they do not always realize it; this is a personality which neither strongly accepts nor strongly rejects social norms or the achievement of group goals.

Upward-Forward (UF)

This person shows a main concern with co-operation towards task achievement and the preservation of group unity through loyalty; he apparently identifies himself with a

larger, impersonal plan which transcends the group; he does not ignore individual differences, but calls them to attention and tries to bring them into line; the persuasion used by him is not individually tailored to the motives of each divergent member but consists in simply insisting that co-operation is necessary; he tries to avoid seeming either positive or negative in feeling, as a father may avoid taking sides in quarrels among his children; he makes others feel he regards them as individualistic; he believes that "a group cannot get its job done without voluntary co-operation from everybody" (but the inclusion of everybody turns 'voluntary' into 'compulsory'); the opposition he arouses in others is frequently turned not against him, but against an external enemy or a deviant in the group; thus he may polarize the group - and even split it - through the very strength of his desire to effect co-operation.

The Relationship of the Group Space Concept to Other Aspects of Group Development

The Three-Dimensional "group space" concept bears a direct relationship to the functional problems which Bales considers crucial to group life. The upward-downward power axis is representative of the problem of Adapting to the external situation. Either the individual tries to overpower the situation (upward) or he becomes resigned,

submissive and yields to it (downward). The positive-negative axis is related to the functional problem of Integrating the existing social-emotional concerns of the group members into the present reality of group life. To perform in a more emotionally positive way is to provide integration and to act in an emotionally negative fashion is to contribute to disintegration of the present group social-emotional relationships. The Forward-Backward axis is involved with the functional problems of the Instrumental and Expressive member concerns. To operate in a forward direction is to contribute to the completion of the existing task and this is an instrumental goal directed activity. To operate in a backward direction is to act as a deviant expressive and to be involved in non-cooperate efforts, or individually formulated efforts for personal rather than group goals. (Table 1)

TABLE 1

Functional Problems and Their Corresponding
3-D Property Space Directions

ADAPTIVE	Upward (dominating, controlling) Downward (submitting, yielding, "adapting")
INTEGRATIVE	Positive (arousing pleasant feelings) Negative (arousing unpleasant feelings)
INSTRUMENTAL	Forward (co-operating on authority-required tasks)
EXPRESSIVE	Backward (persuing deviant, personal goals)

Concerning the phase hypothesis and the three-dimensional property space the explanation is quite acceptable and reasonably clear. During the phase of orientation which is expected to occur early in a group meeting the overall location of the group membership might be expected to be found in the more Positive and Forward sections of the 3-D space, perhaps somewhat downward if a great deal of orientation is provided. With the onset of evaluation there is increase in opinion giving, that is, a movement in the forward (task directed) activity and likely increase also in upward as arguments mount. With the control phase as the next "nested" group problem suggestions increase there ensures more disagreement, and status bargaining. The result should be a movement in the negative direction while maintaining the task and power oriented activity. As the status issue is resolved, if it is, there is an increase in general agreement and acceptance and the positive direction of the group is regained. Some individuals have consequently gained in status. With the release of tension over status there is an upsurge of social-emotional non-task activity and the group moves both upward and backward. This affective behaviour is contagious and the group seems desirous of an ending without remorse or loss of prestige. The direction of movement is then in a downward, positive, backward direction near the close. (Bales, 1968, p. 470).

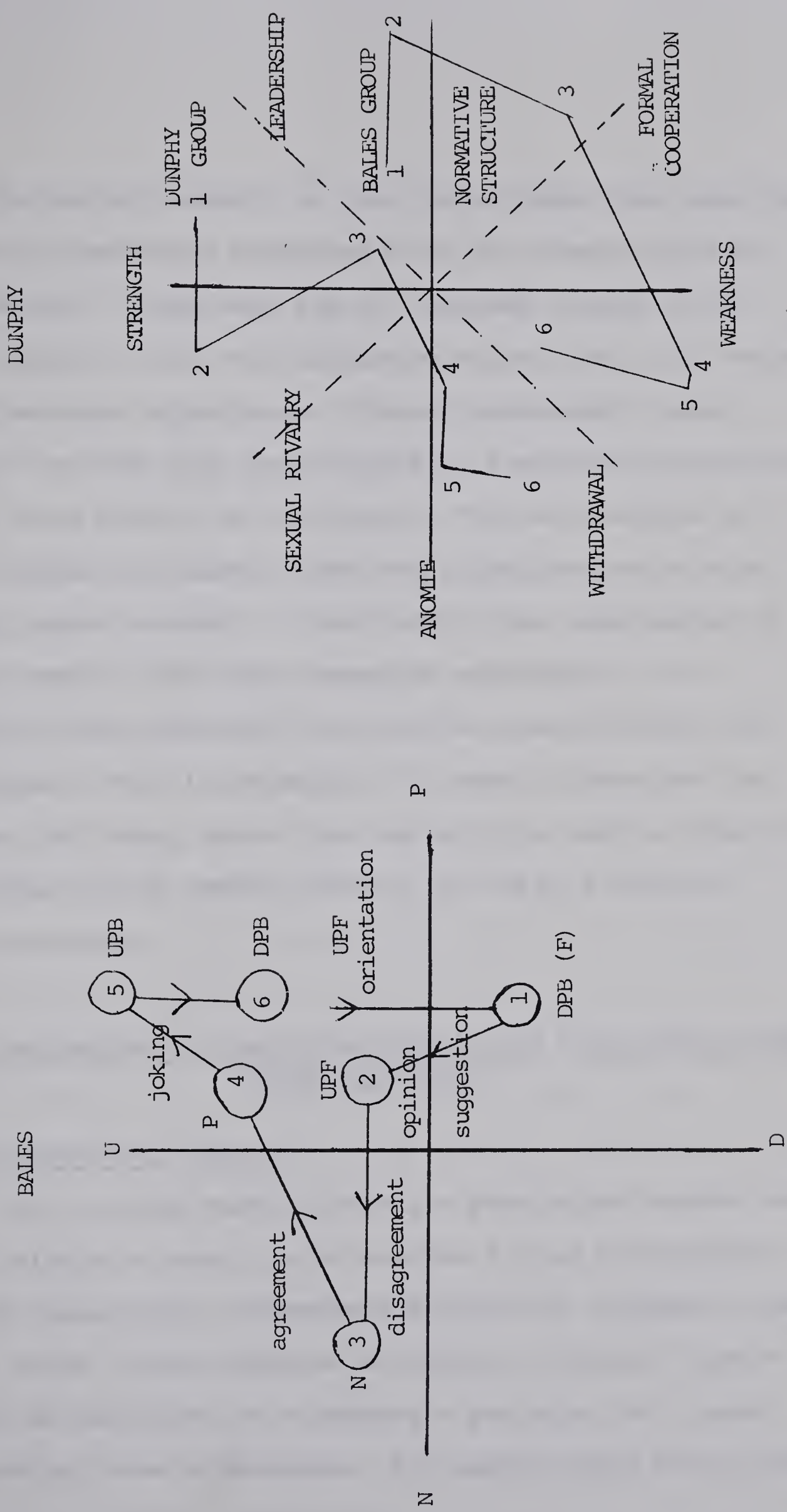
Bales and others have also suggested that the cyclical movement just described for a single session is also roughly characteristic of the life cycle of some groups. (Heinicke & Bales, 1953; Dunphy, 1968). The results of Bales are provided in a graphic form on Figure 10* and adjacent are the results of Dunphy, 1968.

Summary:

This chapter has so far attempted to show how power is acquired and distributed in the small group. This portion of the chapter also demonstrated how Bales' concept of "group space" could be used to uniquely describe this distribution of power in the group. In conclusion an additional hypothesis was generated from Bales' formulations. This hypothesis took the form that each small group could be expected to move (as a collectivity of members rather than as individual members) through this three-dimensional "group space" in correspondence with the problem phases encountered. This hypothesis could be called the "overall group movement hypothesis".

* This is a graphic version of the expected overall group movement in three-dimensional space and is not constructed from actual recorded data. Additionally the Dunphy data are of a content analysis and not an IPA analysis. These limitations should be considered when making comparisons.

FIGURE 10. OVERALL GROUP MOVEMENT ACROSS PHASES, AS VIEWED BY BALES AND DUNPHY.



In overall summary to this point there have been four testable hypotheses generated from the formulations of R.F. Bales'. They were the (i) "nested" phase; (ii) equilibrium; (iii) role differentiation, and; (iv) overall group movement hypotheses. Three-dimensional "group space" has also been established as a method of describing power distribution in the group. The next section of this chapter delineates some novel application of this "group space" concept. Specifically the association of "group space" with other accepted psychometric or analytic group measures, such as the questionnaire and sociogram. This is necessary in order to show how the concept of "group space" can and will be used to examine individual group member careers, as well as overall group movement.

The Combination of the Three-Dimensional Group Space and Group Structure

Describing Group Members

When a group member assumes a particular stance, or role, within a group, he is somehow fixing his position on one of these three fundamental dimensions, related to the three group issues referred to above. In Bales' system he can be described as occupying a position in a space defined by three dimensions. An example might be an UPF

personality type who is somewhat dominating (U), perceived as likeable (P) and helping in the task (F). In opposition to the Benne and Sheats typologies, where an individual is limited to only one dimension, the Bales typology provides more scope, as well as being visually helpful. Once the members of the group have been located in 3-D space, the personality typologies which correspond to the member locations can be referred to, and a comprehensive description provided of the individual's expected group performance. The group structure arrived at by means of the Bales Questionnaire is an index of the location of each individual on the dimensions of control (U-D), affection (P-N), and task (F-B). The corresponding number of ratings for each individual, as agreed by other members, gives an index of the importance which can be attached to each rating. Suppose for example, that in a group of twelve individuals Person A received an UPF rating from seven others, a UP rating from three others, and a PF rating from one other. His own personal rating might have been P. In summary the rating is 10U, 12P, 8F. A quick interpretation of these three scores would give this particular person a considerable amount of control in the group (10U), a great positive influence over other individuals (12P), and a moderate influence over the achievement of the group task (8F). Person A (10U, 12P, 8F) is a "powerful" individual in his group. His power

comes from his ability to control the more submissive members, to exert a persuasive influence by means of his positive self-portrait and to engage in a certain amount of task effort valued by the group instead of individual enterprise. This is group power!

The results of administering Bales' questionnaire to a small self-analytic group are represented below. The members of all four groups were asked to complete the questionnaire on six different occasions during the life of the group. Three of these occasions for one group are shown below. These sessions provide a good cross-section of the overall structure of the group from its beginning to its termination at Session 15. Each questionnaire was completed by each group member for themselves, their fellow participants and for the trainer. The complete score for each person was then calculated and listed. Then special group plots were made from these complete scores.

Scores on Bales Questionnaire for a Self-Analytic Group

Name and I.D. Nbr.	SESSION 2	SESSION 7	SESSION 15
T(1)	2U 6N 2F	4U OP 4F	4U 3P 4F
K(2)	4U 6P 4F	4U 8P 4F	OU 8P 2F
J(3)	8U 6P 2F	6U 6P 2F	3U 7P 2F
P(6)	4U 6P 0F	2D 4P 2B	2D 6P 2B
E(11)	2D 8P 2F	4D 6P 4F	2D 8P 4F
E(29)	2D 5P 0F	2D OP 0F	2U 2P 4F
B(30)	4U 4P 0F	4U OP 2B	5U 3P 0F
L(40)	8U 4P 4F	6U 6P 3F	4U 8P 2F
M(57)	4D 4P 2F	6D 4P 0F	60 4P 0F
S(58)	OU 6P 0F	OU 6P 2F	2D 6P 4F
G(63)	OU 6P 2F	4U 5P 5F	OU 8P 2F
M(66)	8U 8P 2F	8U 8P 2F	8U 8P 2F
E(85)	4U 6P 2F	4D 5P 0F	OU 8P 1F
	X = 4U 6P 2F	X = 4U 4P 3F	X = 4U 6P 2F (group average)

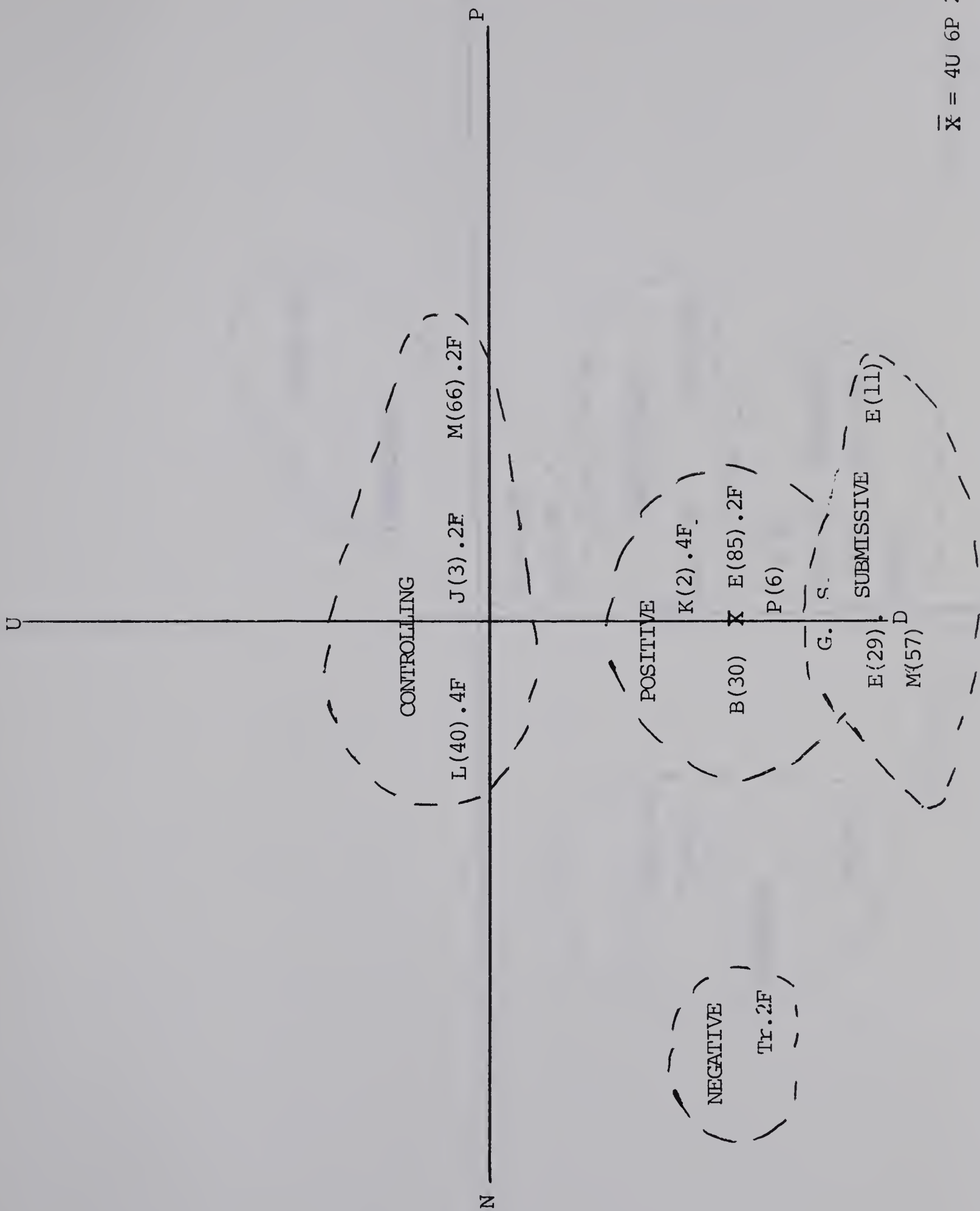
To make the group plots from these average scores it was necessary to take certain liberties. It will become more obvious in the later portion of this chapter why these liberties were taken but from here the reader could accept these data.

From each of the complete scores a common trend seems to appear. In almost every instance there is an UPF, or upward-positive-forward tendency. Arsenian and Semrad (1968) attempt to explain this phenomenon as evidence of individuals being in the same predicament of sharing and living through the same anxiety provoking situations with the very same feelings thus enabling each member to identify positively with every other member. This is done so as to facilitate sympathy, mutual aid and mutual imitation. Overall group average scores from each session were calculated from this UPF group tendency. After Session 2, for example, this average (X) is found to be about 4U 6P 2F. Similarly the X scores for Sessions 7 and 15 were found to be 4U 4P 3F and 4U 6P 2F. It was decided to correct for this response set by re-setting the zero point of the space at the mean for each dimension.

Placing this group average (X) at the central point in our 3-D space we can proceed to plot the group structure. Since it is only 2-D on paper we can fill in the scores for the third dimension (F-B) next to the individuals 2-D co-ordinate.

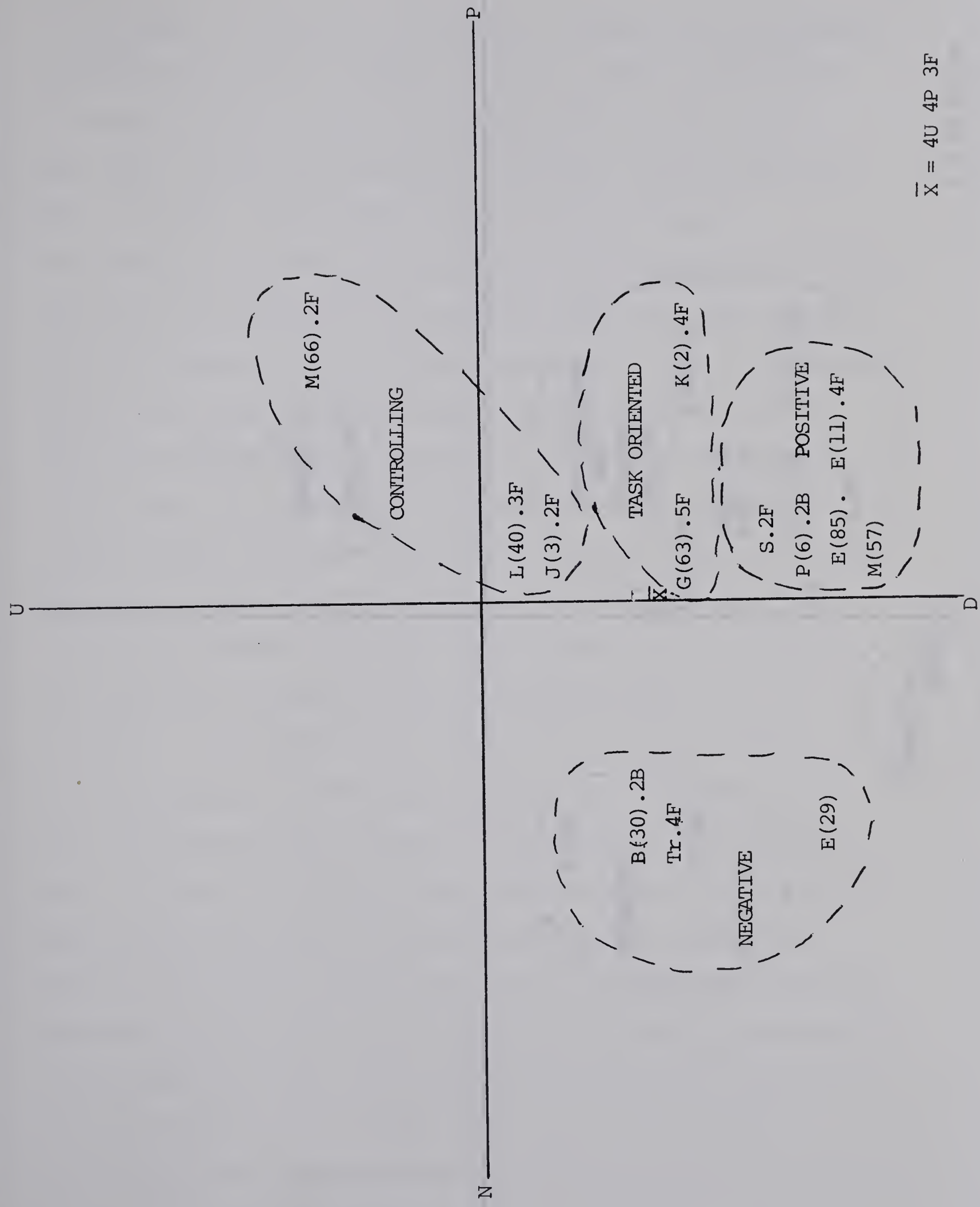
From the plotted group structures of sessions 2, 7, 15 (see Figures 11, 12, 13) it is now possible to discern some interesting features of the group from a more visual frame of reference. From the structures of Session 2, for example, it seems that various sub-groups, or "power blocs"

FIGURE 11. GROUP SPACE LOCATIONS FOR GROUP SAT₁ AFTER SESSION 2, BASED UPON BALES' QUESTIONNAIRE



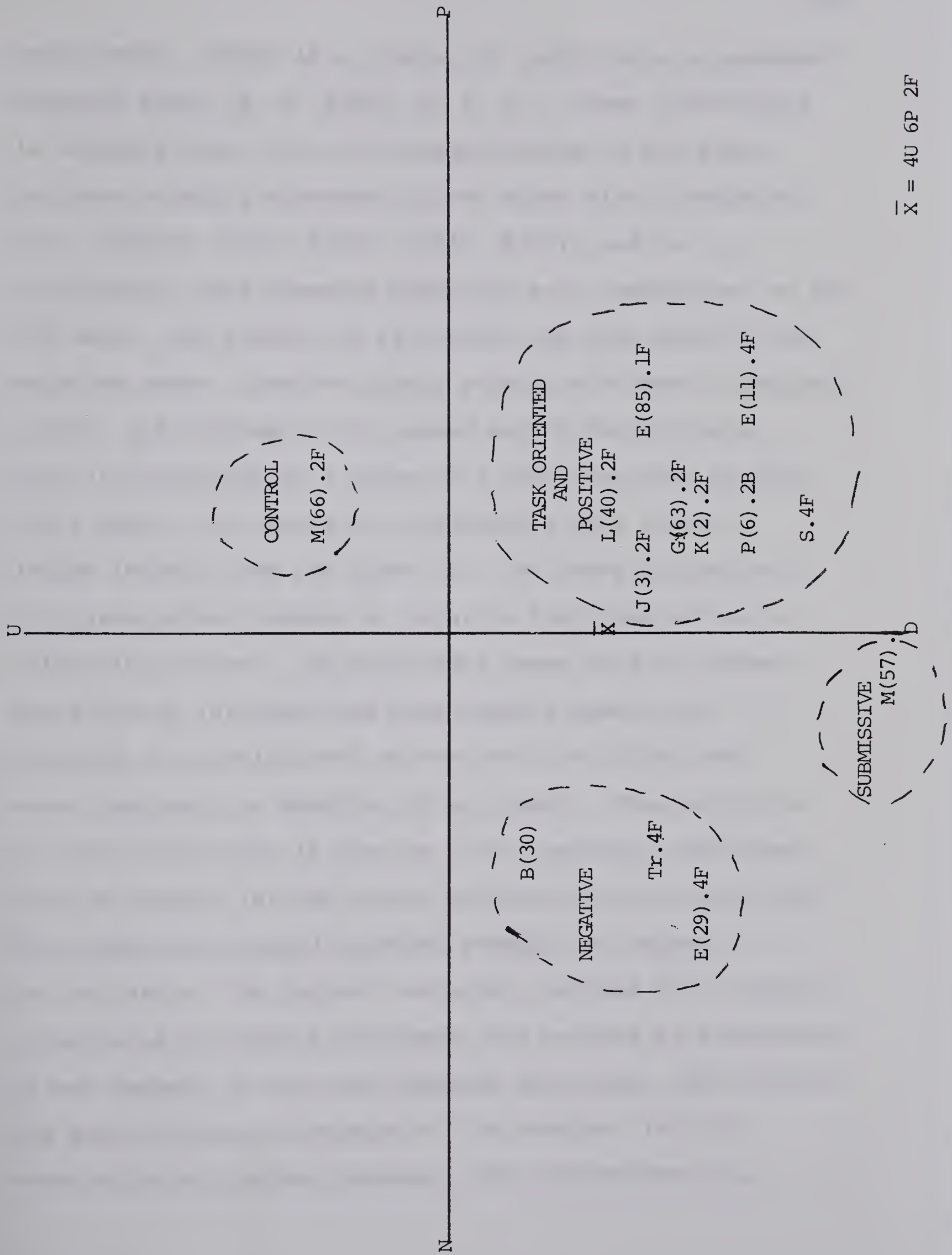
$\bar{X} = 4U \ 6P \ 2F$

FIGURE 12. GROUP SPACE LOCATIONS FOR GROUP SAT₁ AFTER SESSION 7, BASED UPON BALES' QUESTIONNAIRE



$\bar{X} = 4U \ 4P \ 3F$

FIGURE 13. GROUP SPACE LOCATIONS FOR GROUP SAT₁ AFTER SESSION 15, BASED UPON BALES' QUESTIONNAIRE



have formed. There is a cluster of individuals in somewhat downward space (K, B, E(85), P, G, S). These individuals in downward space are not distinguishable in P-N space but seem slightly dispersed in F-B space with a range of 0-4. Another group (E(29), E(11), M(57)) are in considerably more downward space but still ambivalent on the P-N axis. The trainer is an isolate and very much in the negative space. Another group, perhaps with more leadership control are located on the upward end of the U-D axis. They are separated by a range of 4 positive votes between M(66) and L. One might be considered a more popular leader (M(66)) than the other (L). An overall picture of this group after Session 2, might be that they are in an "affective vacuum". No individual seems able to command the positive influence and most members seem to be involved in a feeling-out process and are giving each other the positive benefits of any doubt. This is not so for the trainer who is seen as a very negative individual with no control (U) and little influence over the task (2F). Sub-groups have banded together perhaps for support in the case of the largest sub-group, perhaps for a control struggle in the upward sub-group, and perhaps as scapegoated silent members in the more downward sub-group. The trainer has been singled out because of his complete lack of association with other members. This consequence is,

of course, a result of the training method being used and not associated with the trainer as a person.

In Session 7 a certain amount of change takes place. The group is more dispersed and it seems as though members are beginning to make discriminations about each other. The trainer seems like a less despicable person and other members are joining him on a blacklist (E(29), B). The group which banded together for support in the earlier session now seems less cohesive. G and K maintain their neutrality while P, S and E(85) join M(57) and E(11) among the submissive, non-influential membership. M(66) has gained the majority of control "votes" and L and J have slipped somewhat in comparison. The trainer has assumed some task leadership; although not to the point where he is the overall influence in the work which the group may be doing.

In Session 15, and the last session of this group, M(66) has become the popular controlling leader of this group. B, E(29) and the trainer have continued to collect the negative feelings from other members and L has fallen out of favour. There is a very large cluster in the neutral membership roles (which may be a function of termination) and M(57) is seen as the most submissive of the non-influential members.

It is possible then to obtain a considerable amount of

information about the issues of control, affection, and task from the Bales Questionnaire. It is also possible to determine to a considerable extent the amount of "power" which attaches to each of the members and their corresponding scores on the three dimensions. Their average scores tell us a great deal and a return to the individual responses for each member might tell us even more. At this point it is necessary to digress slightly to make it somewhat clearer why we have made the special alterations in the scoring and plotting of the Bales Questionnaire.

Another way of arriving at an index of "power" is through the sociogram. J.L. Moreno (1934) provided the foundation for this approach. The members of the group are asked to make ratings of other group members. An example of a sociogram established for group analytic purposes is provided in page 126. Here the individuals are asked to rate the group members with whom they agreed, disagreed, felt were major spokesmen, felt close to, and felt farthest from. A close look at the questions in this sociogram indicates that they might be construed to measure less than six different things. Suppose we visualize them as measuring control (major spokesman, Question 2) affection (closest to Question 3; farthest from Question 4) and task (agreed with Question 1, also agreed with Question 1 agreed least with Question 1). We

could associate the ratings of these members, such as Moreno might, and decide upon the sociometric structure of the same group as we did with the Bales questionnaire. This is a very meaningful way to make sense of the power relationships which might exist.

Listed below are the members of the self-analytic group previously scored on the Bales Questionnaire. In this case they are rating each other on the sociogram for the same three sessions. The numbers identify the member chosen on each question. K(2) is choosing M(66) on question 4 in Session 2, for example.

Name and I.D. Nbr.	SESSION 2				SESSION 7				SESSION 15			
	Sociogram Question				Sociogram Question				Sociogram Question			
	1	1	1	2	3	4	1	1	1	2	3	4

Trainer = T and does not vote

<u>Person Choosing</u>	Person Chosen				Person Chosen				Person Chosen											
K(11)	58	3	T	66	58	T			58	3	30	66	58	30	29	66	63	29	29	11
J(3)	3	2	40	40	66	40			40	66	58	40	40	85	66	30	29	66	66	29
P(6)	30	85	40	3	2	40			66	3	63	66	30	57	66	29	63	29	-	-
E(11)	66	40	3	40	40	29			2	66	40	40	3	30	3	29	57	66	66	T
E(29)	40	66	6	66	40	T			66	3	30	66	66	57	2	3	6	29	2	66
B(30)	3	6	40	66	6	40			66	3	2	2	-	40	66	3	29	29	63	29
L(40)	66	29	3	66	-	3			66	3	20	66	66	30	29	66	-	29	-	-
M(57)	2	3	40	2	11	66			30	66	29	66	66	2	66	29	2	66	29	66
S(58)	66	2	40	2	3	57			2	40	30	66	2	30	58	T	-	66	58	3
G(63)	40	57	3	58	40	11			11	66	30	66	66	57	29	66	T	29	2	6
M(66)	40	3	63	66	2	57			40	3	2	40	40	30	63	30	57	66	63	29
E(85)	2	66	40	40	30	40			40	66	30	40	30	11	66	29	-	66	66	29

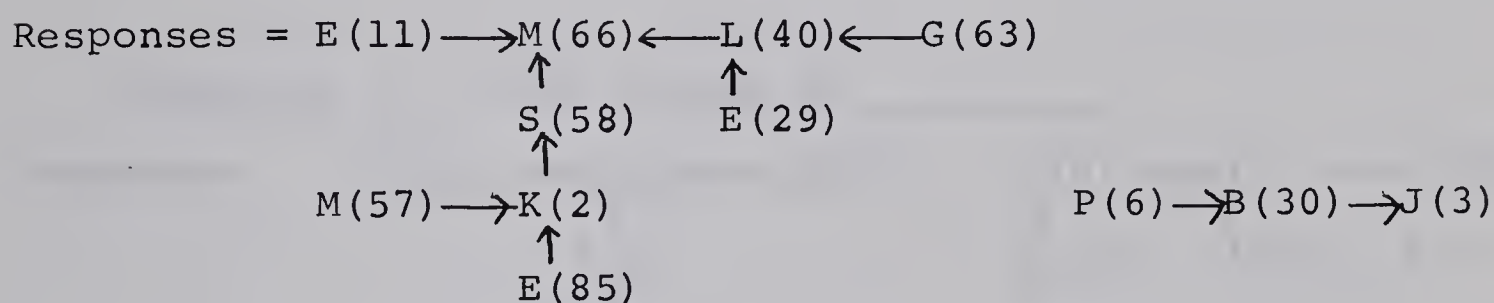
Total Number of Times Each Person was Chosen on Each Question of the Sociogram

K(2)	2	2	0	2	2	0	2	0	2	1	1	1	1	0	1	0	2	0
J(3)	2	2	3	1	1	1	0	6	0	0	1	0	1	1	0	0	0	0
P(6)	0	1	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1
E(11)	0	0	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	1
E(29)	0	1	0	0	0	1	0	0	0	0	0	0	3	4	2	6	2	4
B(30)	1	0	0	0	1	0	1	0	4	0	2	5	0	2	0	0	0	0
L(40)	3	1	6	3	2	4	3	1	0	4	2	1	0	0	0	0	0	0
M(57)	0	1	0	0	0	2	0	0	0	0	0	3	0	0	2	0	0	0
S(58)	1	0	0	0	1	0	1	0	1	0	1	0	1	0	0	0	1	0
G(63)	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2	0	2	0
M(66)	3	2	0	5	1	1	4	4	0	7	4	0	5	3	0	6	3	2
E(85)	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Trainer	0	0	1	0	0	2	0	0	0	0	0	0	0	1	1	0	0	1

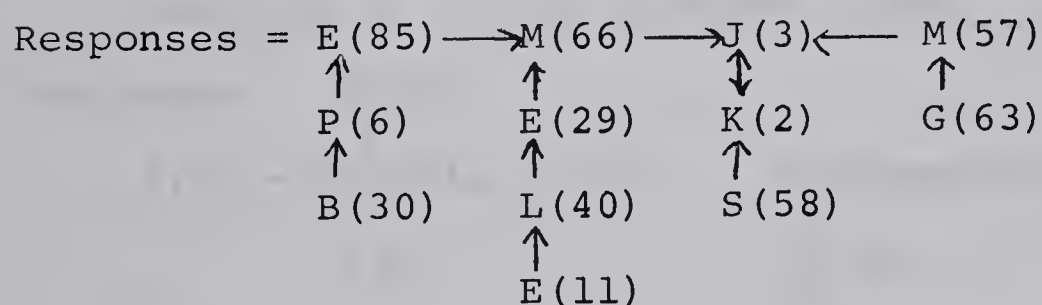
Suppose we were to take the first section of these voting records and develop the typical Moreno sociogram patterns for session 2.

SESSION 2

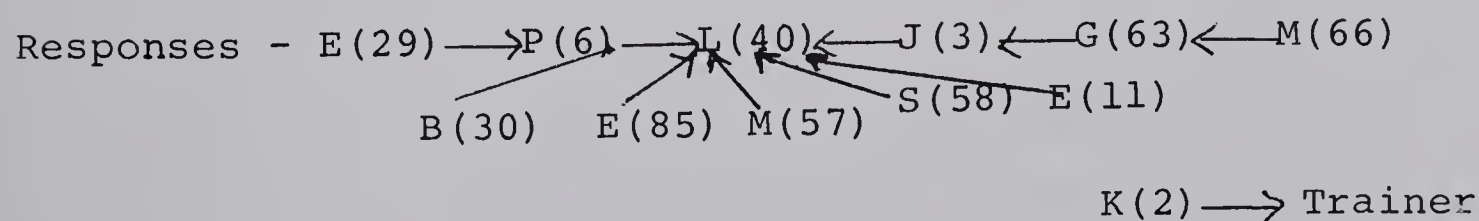
Question 1 In this meeting I agreed with _____



Question 2 I also agreed with _____



Question 3 I agreed lease with _____



Question 4 The major spokesman for the group today was

Responses -

```
graph LR
    B30["B(30)"] --> M66["M(66)"]
    E29["E(29)"] --> M66
    L40["L(40)"] --> M66
    L40 --> E85["E(85)"]
    J3["J(3)"] --> L40
    P6["P(6)"] --> J3
    E11["E(11)"] --> J3
    S58["S(58)"] --> K2["(K2)"]
    M57["M(57)"] --> K2
```


It would be quite easy to continue this process of drawing group sociograms for each question in the remaining Sessions 7 and 15. For our purposes it will be sufficient to do only Session 2 to its logical completion. As can be seen there is a definite amount of information which is arrived at through a sociogrammatic analysis but is not as readily available through the Bales Questionnaire. We can quite easily see the sub-groups forming and we can also see how each individual in the group is developing his particular allegiances. In each different technique we get an opportunity to discover, and in a way to make sense of the power relationships which might exist in this group. Suppose however that we combine two methods: First; we tally the total number of choices for each person on each of the six questions of the sociogram, as we did in the second section of the voting records. We consider these questions as being on the U-D, P-N, F-B continuum, with the questions of number 1, as F-B, question 2 as U, question 3 as P, and question 4 as N. We could now locate the individuals in 3-D group space from the sociogram alone. Next; we would join up the vectors corresponding to the particular individuals who actually made the choices which put the important individuals in their particular space. We now have the best of both worlds. We have the location of the individuals in 3-D space and we know what particular group members placed

them there. If we returned to our Bales Questionnaire and located the questions that perhaps corresponded to the same sociometric questions and drew the vectors from these individuals the results should be isomorphic. In the second case however we have used only a 4 item sociogram, and all the advantages of the 3-D space we are so concerned with, in group analysis. We know who are the powerful individuals, we know who gave them their power, and if we do this for several sessions we will know how they gain and lose power on each of these 3-dimensions over time. At this point we could construct the 3-D structure of our groups using the sociogram material only. We can then compare it with our Bales 3-D plot (after we have gone back to look up the individual scores so that we can draw in the voting vectors) and hope that even if they are not isomorphic (or a perfect fit) they will at least be very similar.

Figure 14 is the 3-D structure of the group using sociogram from Session 2.

Figure 15 is the 3-D structure of the group using Bales Questionnaire and returning to acquire the individual voting patterns. From a brief visual check on the Questionnaire results the voting records for L(40) as negative and task oriented, M(66) as powerful, and Trainer as negative, would give the best comparison with the sociogram.

The votes for these members are shown below.

	K	J	P	E	E	B	L	M	S	G	M	E
L(40) received from I.D. Nbr.	2	3	6	11	29	30	40	57	58	63	66	85
on Positive- Negative (affection)	8P	2P	0P	4P	2P	10P	4P	6N	2N	8P	10P	4P
M(66) received (1) on Upward- Downward P dimension (Control (2) on Forward- Backward dimension	6U	8U	4U	8U	10U	10U	10U	0U	14U	16U	12U	8U
	2F	2F	2F	8F	2F	12F	2F	2F	2F	0F	2F	4F
Trainer received on Positive- Negative negative (affection)	4N	0	P	6N	12N	2N	4N	10N	6N	8N	6N	P

Before looking at the voting structure and the location of the group members in 3-D space on each of the two diagrams it might be best to explain in which the plots were constructed. Since there was no downward "D" question on the sociogram it seems acceptable to consider the absence of U votes as being an indicator of submission (D) or lack of control of the group. As a result our sociogram plot starts at 0 on the scale of U and allows for a total score of 8U. (Since it is quite unusual for one group member to score greater than 8 votes on the control question of our sociogram). The P-N dimension allows for 8 votes as well in either direction from the 0 points of the P-N axis.

(The 0 point of the P-N axis is thus located at the 4 vote mark on the U-D dimension axis).

The questionnaire diagram works on very much the same principles with two minor alterations. The first alteration is that we have allowed for the UPF bias and the tendency to score reasonably high on these dimensions by giving a group mean (usually 4U 6P 2F). To have a situation where the most group members would cluster in Downward-Neutral space, as in the sociogram, we have strategically located this mean at the one quarter way point in the U-D axis. Since, very infrequently, a person might score very downward (say 6 - 8 D) on the questionnaire any such score is considered at 1/2 its value when it falls below the point of this U-D dimension; after the mean has been thus located. This should also make it easier to have individuals who filled out the sociogram and questionnaire dispersed somewhat equally in the 3-D space of both diagrams.

From Figure 14 it can be recognized quite easily that M(66) is uppermost on the issue of control. He has received 5 votes from various other members of the group in response to the question "The major spokesman for the group today was _____?" The individuals who chose M(66) as the major spokesman can be recognized by the vectors leading towards M(66). In this case they are K(2), B(30), E(29), and L(40). Interestingly enough M(66) has voted for himself on this question and this makes

FIGURE 14 GROUP SPACE LOCATIONS FOR GROUP SAT₁ AFTER SESSION 2, BASED UPON SOCIOGRAM.

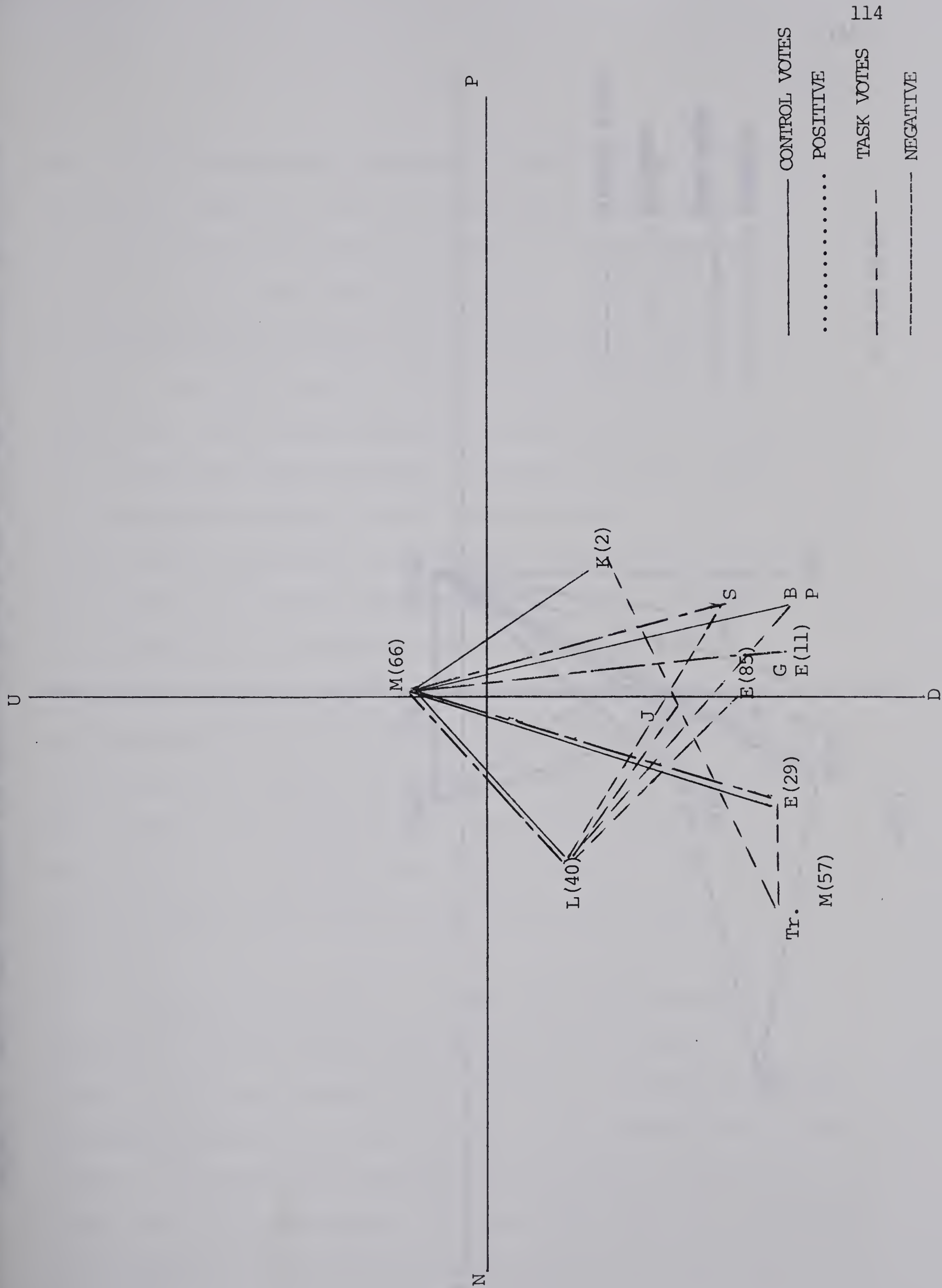
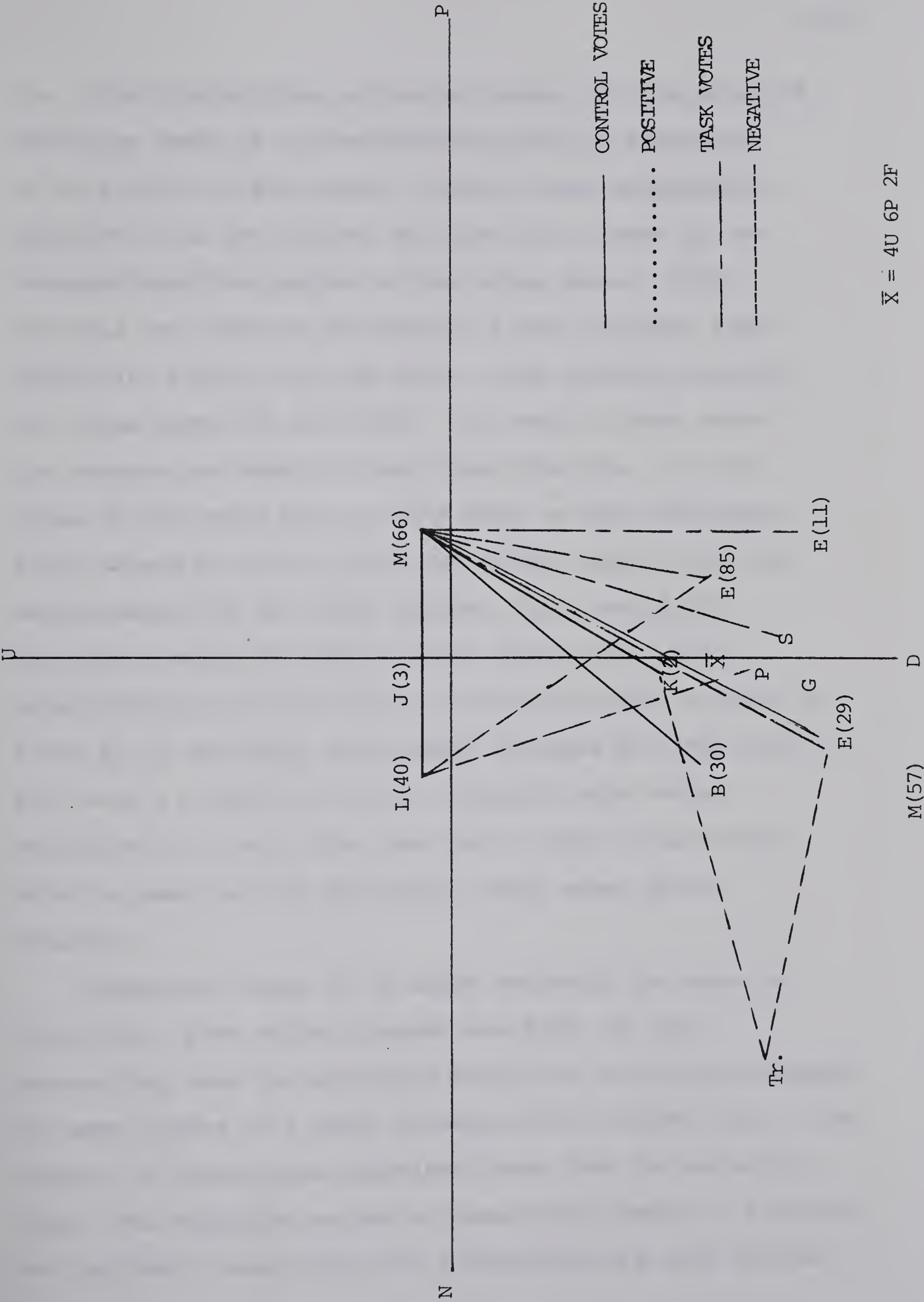


FIGURE 15. GROUP SPACE LOCATIONS FOR GROUP SAT₁ AFTER SESSION 2, BASED UPON BALES' QUESTIONNAIRE.



$\bar{X} = 4U \ 6P \ 2F$

the fifth vote on this particular issue. On the issue of affection there is no overwhelming positive personage to this point in the group. L(40) is seen as somewhat negative as is the trainer and they are located in the Downward-Negative portion of the group space. L(40) received her votes as the person "I felt farthest from" from J(3), B(30), P(6) and E(85). The trainer received his votes from K(2) and E(29). In each of these cases the vectors are drawn to show this situation. On the issue of the group task we find M(66) as the individual first chosen by L(40), E(11) and S(58). He is also the second choice of two other members, E(29) and E(85). Allowing a value of 2 for a first choice and 1 for a second choice in this issue it would give M(66) a total of 8 and he is the major task leader followed by L(40) with 7, K(2) with 6, and J(3) with 6. Actually this voting situation is a very close one and it might be said that M(66)'s power on this particular issue seems quite tenuous.

Examining Figure 15 it seems basically the same as Figure 14. Some slight changes see M(66) as less controlling than the sociogram structure initially indicated. He seems locked in a power struggle with L(40) and J(3). The trainer is viewed more negatively here than in the sociogram. The voting structure is remarkably similar. Although not perfectly synchronized the allegiances are very similar.

This concludes the remaining section of this chapter. The major concern at this section was in describing the way in which "group space" could be associated with presently accepted group analytic techniques. This was done to provide a basis for the discussion of individual careers in the group and to establish an additionally expansive and novel approach for describing these careers.

The experimental design, data collection and method of analysis are described in Chapter 4. This serves as a necessary and vital prelude to the presentative of the results of the tests on four Bales' hypotheses of group development, and the elaboration of the individual careers of particularly significant members in this group development.

CHAPTER 4

DESIGN, DATA COLLECTION, AND METHOD OF ANALYSIS

The Experimental Course - Educational Psychology 421

For the past two years, the author has been part of a research team which has been interested in investigating various methods of instruction. The more recent efforts of this team have been devoted to examining various types of learning groups in a room equipped with a one-way mirror. Various techniques have been employed to sharpen observational skills, and to this point the development of competence in applying a Bales' Interaction Process Analysis (1950, 1970) has seemed most beneficial.

After literally hundreds of hours of viewing groups in action, and subsequently analyzing their behaviour as recorded on video-tape, it became apparent that subtle changes in personality, attitudes, and understanding of human behaviour may be more manifest in observers than participants. To investigate that hypothesis, as well as the hypothesis of this particular thesis, an experiment was designed and offered in two sections of an experimental course for senior education students at the University of Alberta. Prior to course registration students were informed of the experimental nature of the course; the need to complete an extensive battery of psychological tests,

and the expectations of the course director (J.P. and W.M.) with regard to regular and punctual attendance. Ninety-eight students enrolled for the course and others had to be turned away. During the experiment which lasted approximately three and one half months, only four students withdrew, two because of graduation requirements. A pass grade in the course was given for meeting the expectations of attendance and completion of all tests. Students who were interested in receiving high grades were required to submit a term paper which related to their group experience. Two-thirds of the class wrote term papers.

The Treatment Groups

After completion of the pre-test measures, students in each section of the course were randomly assigned to various observers or participant treatments by the course instructor. The treatments consisted of 15 laboratory sessions which were 50 minutes in length. A description of each treatment is given below.

(1) Participant Treatments

SAT: In this type of group experience the members of the group are asked by the trainer to "observe and try to understand human behaviour as it is happening in the here and now." The trainer then establishes that his function is to provide interpretations in an analytic fashion, of

the ongoing dynamics of the group and not to act in a supportive fashion. He tries to keep the group concerned with process and content and to retain the here and now emphasis. He deals with the defensive styles of the group members and uses the onset of transference phenomena as an important and crucial stage where members can learn about human behaviour. The trainer is not supportive, friendly or extroverted in any respect but his role is to remain a very neutral and somewhat ambiguous figure who only speaks when providing an interpretation. In a sense he acts as a blank screen upon which the members of the group can project their images of authority. His object is to reflect these impressions back to the participants in an objective fashion. Other dynamics which appear within the context of the group are considered in the same manner and their interpretations are provided to the group members in the same objective style. The way in which the group members chose to deal with the trainer or his interpretations is entirely up to them with the condition imposed by the trainer that all behaviour is subject to analysis.

DCM: In this type of experience the group members are concerned with learning a definite set of communication skills. The trainer is an instructor who has been given a limited time and a limited number of persons to teach. His role is to act as a model of the conditions he would like

the other group members to learn. The way in which he decides to instruct these group members is defined in terms of a didactic, roleplay, practice session format. The communication skills which the participants are asked to learn are those outlined by Robert Carkhuff in his book "Helping and Human Relations". In a very strict sense they are designed to make the participants more "facilitative human beings."

The trainer is expected to be friendly, warm, empathic and genuine in his dealings with the group members. He behaves as he would expect any other group member to behave. This is quite a contradiction to the SAT trainer who is non-communicative except when offering an interpretation of the ongoing dynamics of the group. The DCM trainer tries to bring about an atmosphere of conviviality and openness in his group which will be conducive to the learning of this task material.

(2) Observer Treatments

Two types of "self-training" an observational analysis were encouraged. Observers working with either system of analysis were assigned to witness the entire interaction of either a SAT or DCT group.

(a) Bales Observation Training (BOT)

Students in this group were encouraged to read R.F. Bales (1970) book and independently practice IPA analysis. The course instructors offered limited direction in the way of shaping exercises in the early stages of the course, but it was the students fundamental responsibility for development proficiency in this skill.

(b) Clinical Observation Training (COT)

Students in this treatment were simply instructed to view the group observed as a "patient". Notes and references to a chapter on clinical analysis in a recent text by Millon (1969) was encouraged.

To isolate treatment effects, all students were encouraged from discussing the experiment with members in other treatments. While the instructors had initially thought that students should receive no help in their tasks, a few basic readings were posted to provide a starting point for reducing reactions to ambiguity.

The Instructors

Since many different types of experiential learning situations fail because of inadequate trainers, it was felt that only the most competent people should be asked to become the trainers for these two different group experiences.

In the self-analytic group the trainer was a professional psychologist who had introduced this particular type of small group training into the graduate school in the Department of Educational Psychology and was the most knowledgeable professional available for this task. He has been to the Tavistock Institute of Human Relations, where this self-analytic treatment was introduced, in a more therapeutic framework and without the certain modifications introduced for the educational rather than therapeutic aims of this course. He has also conducted self-analytic group experiences of this kind for a number of years.

For the direct communications group the trainer was a counselling psychologist with a thorough knowledge of the didactic material he was engaged in teaching to these groups. He has published a book on these communications skills and has conducted communications workshops, taught personal and social dynamics at the university level, and conducted numerous groups, both in the educational and therapeutic context. These two groups were trained by highly competent, professional individuals.

The Data

(i) Interaction Process Analysis: Each session of the groups was scored on Bales Interaction process analysis by two trained Bales observers (W.M. and J.P.) The reliability

of these observers had previously been established ($r = .95$) on a test-retest basis six months earlier and the reliability rates for this experiment was again established (see page 133).

A computer program was written to help break down the IPA results and to develop the tests for various hypotheses*. Since the program is very complex and quite bulky it is more feasible to provide a basic outline of the programmed IPA results available on recall.

Provision is made for:

(a) acts initiated and received by each person in each session and overall session; in table form.

(b) indices of direct (CR and indirect (BR) access to resources, degree of control (ARD) and generalized status (GS) for each person in each session and overall sessions.

(c) acts distributed between people for each session and overall; in table form.

d) frequency with which each act follows each other act; in table form.

* This program was written by Mr. D. Precht (Department of Educational Research, U of A) with the assistance of the author, Mr. W. Matheson. It is now available in the research library as Test 12: Bales IPA.

(e) act initiation by each person in each category in each session, expressed as a percentage; in table form.

(f) act initiation in all sessions, expressed as a percentage, in table form.

(h) act initiation in all categories, expressed as a percentage, in table form.

(i) percentage usage of each category in each session, in table form.

(j) percentage usage of each category pair in each session, in table form.

(k) deviations in usage of category pairs over sessions in graphic form.

(l) indices of malintegrative behaviour, communication difficulty, evaluation difficulty, difficulty of control, directiveness of control, overall; in table form.

(m) indices of interaction between malintegrative behaviour and each other group problem; in graphic form.

(n) description of the social-psychological direction (s.p.d.) of each person, in each session, and overall session; in table form.

(o) a graphic plot of the three dimensional (s.p.d.) structure of the group, over all sessions.

(ii) Sociogram data: After each session of the group the participants were asked to complete a small sociogram questionnaire (Figure 16). It consisted of four items which were designed to arrive at an additional index of the

subjective opinions of the group members about various other members at particular points in the life of the group.

Figure 16

The Group Sociogram

Name _____

Group _____ Session _____ Date _____

- (1) In this meeting I agreed most with _____.
I also agreed with _____. I agreed least with _____.
- (2) The major spokesman for the group today was _____.
- (3) I felt closest to _____.
- (4) I felt farthest from _____.

Each of the questions in the sociogram can be seen to represent a particular dimension of group experience. Questions 3 and 4, for example are oriented around the affective dimension. Question 2 is a question which is concerned with the power-submission dimension. Question 1 is concerned with the task dimension. In this way the sociogram information can throw light on the way the group members themselves feel the group structure to be. Other information such as the live IPA analysis, or the Bales questionnaire data, is less subjective but very much in sympathy with the particular directions of group performance being measured by the sociogram. The analysis

of the sociogram results is reported in later chapters.

Bales Interpersonal Ratings Questionnaire:

Some mention has been made of the Bales questionnaire in earlier chapters. As a more comprehensive description it consists of twenty-six items (Appendix A). Each item represents one of the twenty-seven possible locations in 3-dimensional group space. The location of A.V.E. which is the intersection of all three axis of the property space, does not have a corresponding item on the questionnaire. This is the reason there are twenty-six items, rather than twenty-seven. Each other 3-D co-ordinate has a corresponding item on the questionnaire.

Each item can be answered either yes or no, and if the respondent is ambivalent about the response he may omit the item. If a yes response is recorded the respondent is given credit for the appropriate property space co-ordinate for that item. If a no response is recorded the respondent is credited with the opposite property space co-ordinate. For example: If a yes was recorded on item 1 the respondent would receive an upward directional score. If a no was recorded on item 1 the respondent would receive a downward directional score.

In this way each of the responses on the twenty-six items is tallied and then added. After addition there are six different total scores, one for each direction of

U, D, P, N, F, B. Then the opposites of each of the 3-directional axis are subtracted from one another U-D, P-N, F-B. This leaves scores on three particular dimensions. Those dimensions which have less than a total of three after subtraction are dropped from consideration as a means of allowing for error. Then a co-ordinate is located in the group space and a particular personality "typology" can be found (Bales, 1970) to provide a description of expected group performance.

An example of the tally-sheet and the format for assessing the final group space co-ordinate is provided.

TALLY-SHEET

	<u>Enter</u> <u>Tallies</u>	<u>Find</u> <u>Totals</u>	<u>Subtract</u> <u>and Name</u>	<u>Drop any</u> <u>smaller</u> <u>than 3</u>	<u>Summary</u> <u>Assessment</u> <u>Directional</u> <u>Name</u>
U					
D					
P					
N					
F					
B					

Member Diaries After each group session, both the participant and observer groups were asked to complete a sessional diary. The diary was to contain any impressions about the dynamics of developments of their group which they felt were particularly relevant. The diaries were collected every time a packet of questionnaires or sociograms were collected and they were then organized by groups for a perusal by the author.

The format used for completion of the diary is included here. In reality the observers or participants were allowed the freedom to include this specific material or to go beyond this format if they felt inclined to. The usual procedure followed by almost every member was to use the outlined format.

EDUCATIONAL PSYCHOLOGY 421

DIARY ASSIGNMENT

After each group session, whether a participant or an observer, you are asked to write a brief analysis of the session. You may complete this diary at home and it will be collected at the end of every fourth session. In this way it should contain your individual summaries of the three previous sessions (on three separate sheets which are clipped or stapled together).

It is expected that this continuing exercise will prove helpful to you in organizing your thoughts and impressions about the social behaviour you are engaging in, or are observing. The analysis is an important part of your overall assignment and will be considered as crucial in achieving a full 50% of the final grading assigned for work completed.

You should have a copy of the form which the diary sheets should take and it is hoped that you will always use this format when handing in the analysis. You may find the underlying suggestions helpful as starting points in your diary but you may include whatever you might think relevant.

1. Try to examine your feelings and their effects on other people. If you are a participant this may be an easier task than for an observer but try to put yourself in the place of others.

2. Try to discover the motives and concerns underlying the behaviour of group members, by inference from the content and manner of the discussion.

3. Try to detect any issues that are being avoided in the discussion and to find the reasons for avoidance.

4. Try to trace the connections between what is happening now and what has happened in the past.

5. Try to discover the important roles that individuals have adopted and attempt to understand the part they play in the development of the group.

Group Assignments Each member of the 421 class was given a mark of 5 (on a stanine system) for successfully completing all the materials and for attending meetings faithfully. In order to allow for better grades it was possible to improve this mark by handing in a term paper at the end of the group experience. The only provisions on the paper were that (a) it would be about the groups you were participating in or observing, (b) it would incorporate your particular experience as a participant, clinical or Bales observer. About two-thirds of the total group completed a final assignment. The actual assignment format is reported below.

ASSIGNMENT FORMAT

This assignment will be based on two kinds of activity which should be regarded as complementary - observations based on participation in a laboratory group, or those based on observation of such a group perhaps with the aid of an analytic framework in which to place such observations.

Basic to this assignment would be an effort on your part whether a participant or an observer, to make use of your diarized notes or "journal" and to avail yourselves of the articles and books on reserve in the Education Library. If you make a conscientious attempt to make "sense" of your observations by means of these selected readings you should have no trouble in completing this assignment.

The assignment is quite open-ended and could consider anyone of such aspects of small group process as: problem-solving phases through which the group seems to pass, affective (emotional) changes in participants as a result of such phases, emergence of roles and development of allegiances, mechanisms of arriving at decisions, the distribution of control, and transfer value to the teaching situation. There are many more possible topics and you are given a free reign to choose as you see fit. The only criterion for accepting the paper is that it concerns itself

with some part of group life, group learning or the understanding of human behaviour.

The best tip we can offer is to say that everything that happens is important to the group and you should make a point of note-taking and journal keeping in a diligent fashion. The instructors will be available on a consultant basis if you have difficulty.

Sociometric Data Sheet Since group behaviour is not always completed when the time limit of the session expires; and since this study has a particular interest in the coalitions which develop with such group behaviour, it was felt that a valuable addition to any information arrived at through the group meeting itself would be enhanced by an understanding of what occurred just after each meeting. With the help of a fellow graduate student*, a method was arrived at to obtain such information. Since these labs were held on the seventh floor it was necessary for the group members to congregate together while waiting for elevators. This presented a prime opportunity to observe the isolated dyads, triads or subgroups of each particular group. A form was prepared which would reduce the subjectivity of coding the crucial behaviours and each session was recorded on this format. In many instances this proved a valuable aid to understanding or extending our knowledge about these groups.

* I would like to thank Bob Bedeck for his personal efforts to obtain this information.

Reliability Rates for Bales Interaction Recorders

The systematic training which was undergone by the two raters in this experiment was designed to reduce their variation in scoring and to have them considered "experts" in the Bales IPA scoring system. The training consisted of literally hundreds of hours of viewing and systematically coding behaviour and then comparing results. Earlier reliability rates has shown these two raters to be highly agreeable ($r=.95$). To determine the reliability for this experiment a special one-hour student council group meeting was scored by both raters. The total results in all twelve categories were determined and a Chi-square was calculated. Bales (1950) recommends a Chi-square rather than a product moment correlation to determine reliability since:

"it permits a concomitant test of both categorization and unitizing, whereas "r" is insensitive to the number of acts so long as the proportion of acts within categories to total acts is constant (p. 103)."

The suggested Chi-square level which is accepted for purposes of reliability by Bales is .50. The resultant Chi-square for the IPA raters in this experiment was .80. This is indicative of a continued high rate of reliability for these two raters. Since the number of acts scored in each category by these raters seemed quite proportionate, and not suspect to the violation of "r" outlined earlier by Bales, a Pearson correlation was calculated on this student council data. The resultant "r" was .98.

CHAPTER 5

Abstract

Bales' theory has been outlined in chapter two. It was then reduced to the phase, equilibrium, role differentiation and overall group phase movement hypotheses. The two experimental treatments have now also been described and the available data gathered. In this chapter the four Bales' hypotheses of group development are put to the test, in terms of these actual treatment group results.

To facilitate the reporting of the results, each hypothesis is described again at the beginning of the particular section in which it is tested. The results of the tests are then provided and a discussion follows.

CHAPTER 5

TESTS OF BALES' HYPOTHESES

A recapitulation of the "nested" phase hypothesis

When the category system of interaction Process Analysis is broken down there are particular paired categories which, when taken together, can be indicative of particular group problems. It was Bales' contention that in any full fledged, task oriented group the particular group problems encountered would be successfully resolved, if at all, in a definite order, or sequence. The sequence predicted is in a direct relationship to the paired category system. That is the problem indicated through the center-most paired categories 6 and 7 would require solution before the problems indicated in the more extreme paired categories 1 and 12.

The nested sequence is such that the problems of information, evaluation, and control (which are indicated by paired categories 6 + 7, 5 + 8, 4 + 9, respectively) would be resolved in corresponding order. As a consequence of this activity the incidence of positive and negative reactions would use. This would be indicated by a gain in categories 1 + 2 + 3, and 10 + 11 + 12, respectively, (see pages 42-48). The nesting hypothesis was originally developed to apply to changes within a

single meeting (Bales, 1950). It was later suggested that it might apply to group life spans (Heinicke and Bales, 1953)*.

A test of the "nested" phase hypothesis

To test this hypothesis on the four task oriented groups in this study the rates of interaction in the paired categories of orientation (6 + 7), evaluation (5 + 8), and control (4 + 9) as well as the indices of positive (1 + 2 + 3) and negative reactions (10 + 11 + 12) were calculated for all fifteen sessions of each group.

These values are expressed in a percentage form in tables 2 to 5.

For purposes of parsimony and clarity the fifteen sessions of each group were divided into five equal "phases" of three sessions each. This would provide an opportunity for each and every problem sequence to appear. The percentage values were summed and an average value calculated for each three sessions of the problem indices.

Graphs were constructed to test the "nesting" hypothesis in each of the four groups (Figures 17-20).

Discussion:

An examination of the figures depicting the

* Bales, Personal Communication, September 1971

TABLE 2

Rates of interaction for paired categories of orientation, evaluation, control; and for positive and negative reactions in SAT₁

Pos. Reactions			Orientation	Evaluation	Control	Neg. Reactions
1 + 2 + 3			6 + 7	5 + 8	4 + 9	10 + 11 + 12
Session	1	24 %	10%	13%	8%	45%
"	2	35 %	12%	8%	9%	36%
	3	26 %	9%	13%	11%	41%
	4	25 %	5%	9%	7%	53%
	5	26 %	8%	11%	9%	45%
	6	21 %	6%	10%	8%	56%
	7	31 %	6%	11%	12%	40%
	8	29 %	4%	6%	5%	55%
	9	30 %	6%	8%	8%	47%
	10	27 %	6%	7%	3%	57%
	11	38 %	3%	6%	7%	46%
	12	25 %	5%	6%	7%	56%
	13	32 %	10%	5%	9%	55%
	14	34 %	4%	7%	7%	57%
	15	25 %	6%	8%	9%	52%

TABLE 3

Rates of interaction for paired categories of orientation, evaluation, control; and for positive and negative reactions in SAT₂

Pos. Reactions			Orientation	Evaluation	Control	Neg. Reactions
1 + 2 + 3			6 + 7	5 + 8	4 + 9	10 + 11 + 12
Session	1	31%	13%	4%	4%	50%
	2	18 %	12%	8%	10%	53%
	3	18 %	11%	5%	3%	63%
	4	18 %	5%	5%	4%	60%
	5	24 %	9%	7%	3%	57%
	6	36 %	5%	3%	2%	53%
	7	40 %	4%	3%	2%	52%
	8	23 %	4%	3%	3%	67%
	9	47 %	3%	2%	2%	47%
	10	34 %	3%	3%	2%	57%
	11	28 %	7%	4%	7%	54%
	12	35 %	4%	5%	4%	53%
	13	28 %	5%	5%	7%	55%
	14	28 %	5%	5%	6%	56%
	15	35%	5%	3%	3%	54%

TABLE 4

Rates of interaction for paired categories of orientation, evaluation, control; and for positive and negative reactions in DCM₁

Session	Pos. Reactions 1 + 2 + 3	Orientation 6 + 7	Evaluation 5 + 8	Control 4 + 9	Neg. Reactions 10 + 11 + 12
1	21 %	23%	15%	18%	22 %
2	37 %	19%	9%	10%	26 %
3	31 %	6%	14%	11%	38 %
4	21 %	9%	21%	16%	33 %
5	19 %	10%	19%	10%	41 %
6	30 %	8%	16%	10%	36 %
7	29 %	5%	15%	14%	38 %
8	24 %	8%	15%	13%	40 %
9	18 %	5%	12%	10%	55 %
10	29 %	5%	12%	12%	43 %
11	22 %	7%	13%	13%	46 %
12	35 %	4%	10%	13%	38 %
13	34 %	5%	10%	10%	41 %
14	34 %	5%	7%	15%	39 %
15	47 %	6%	10%	13%	25 %

TABLE 5

Rates of interaction for paired categories of orientation, evaluation, control; and for positive and negative reactions in DCM₂

Session	Pos. Reactions 1 + 2 + 3	Orientation 6 + 7	Evaluation 5 + 8	Control 4 + 9	Neg. Reactions 10 + 11 + 12
1	25 %	18%	13%	17%	27 %
2	19 %	14%	12%	12%	43 %
3	21 %	8%	14%	11%	46 %
4	18 %	8%	19%	17%	39 %
5	13 %	9%	19%	12%	46 %
6	18 %	5%	14%	9%	54 %
7	25 %	4%	9%	8%	54 %
8	21 %	10%	13%	13%	43 %
9	18 %	6%	17%	12%	46 %
10	25 %	7%	12%	16%	40 %
11	22 %	7%	11%	10%	49 %
12	20 %	5%	7%	12%	57 %
13	16 %	8%	6%	7%	68 %
14	19 %	4%	5%	14%	56 %
15	34 %	7%	7%	12%	39 %

FIGURE 17. INTERACTION RATES OF GROUP SAT₁ ACROSS FIVE PHASES.

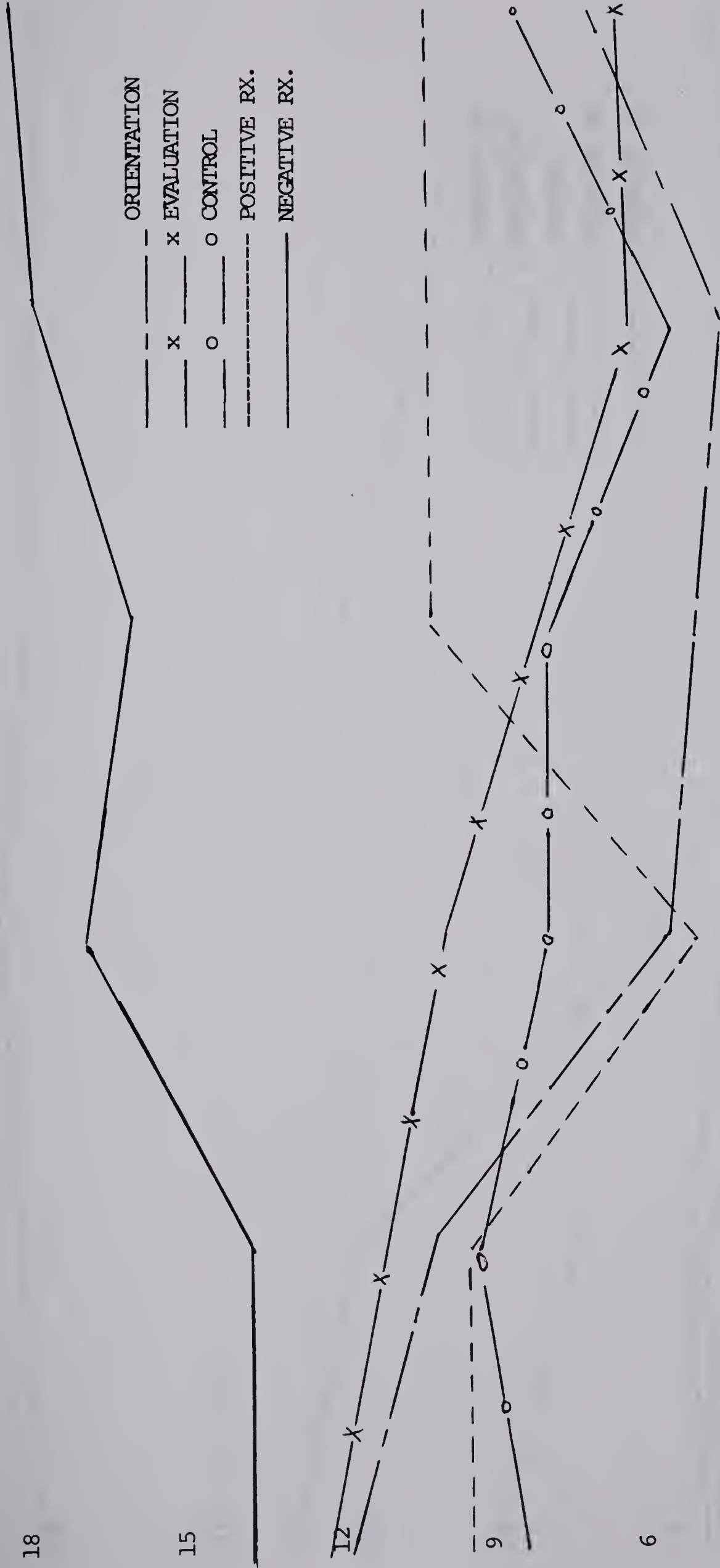


FIGURE 18. INTERACTION RATES OF GROUP SAT₂ ACROSS FIVE PHASES.

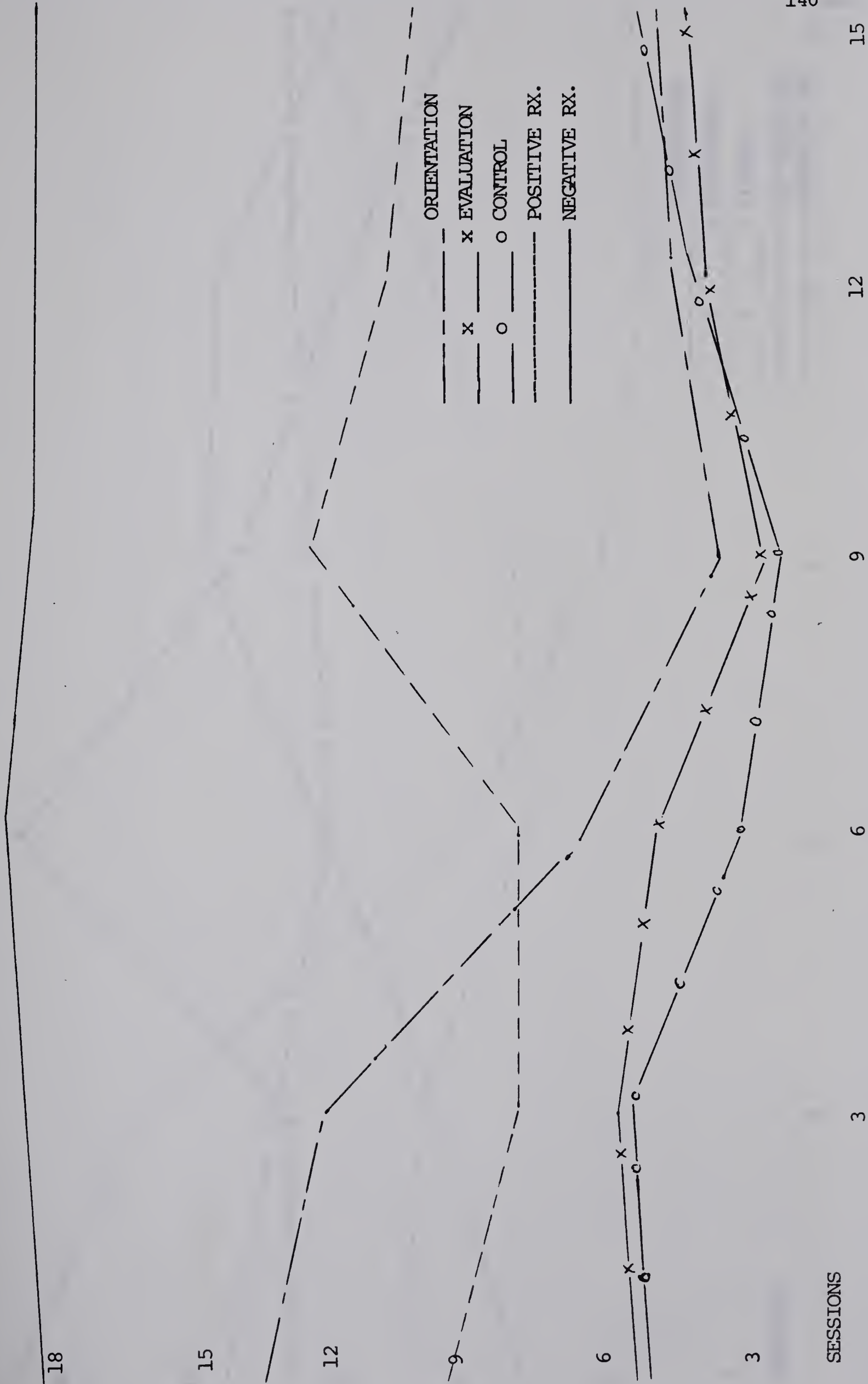
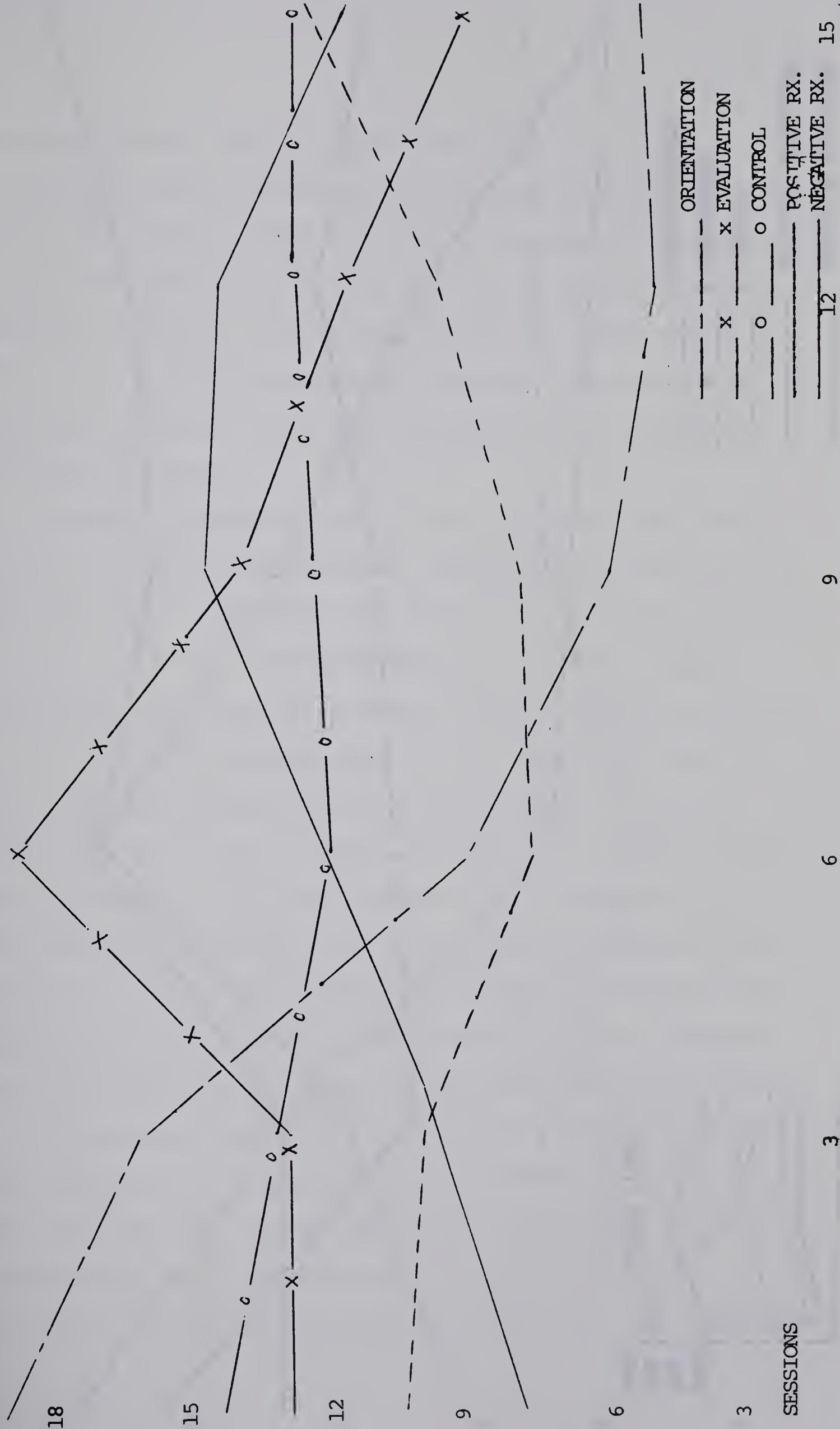
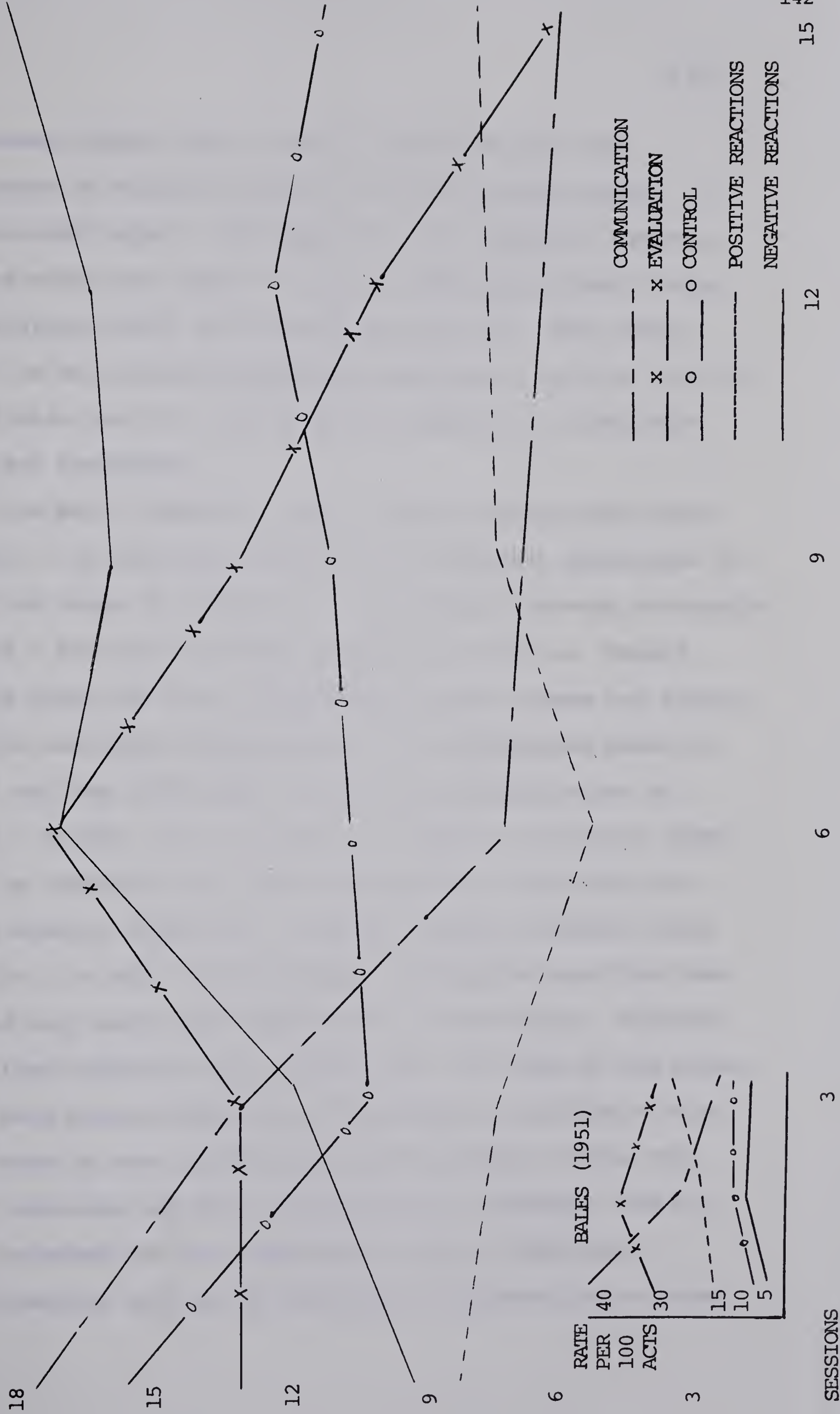


FIGURE 19. INTERACTION RATES OF GROUP DCM₁ ACROSS FIVE PHASES.



% of interaction
21

FIGURE 20. INTERACTION RATES OF GROUP DCM₂ ACROSS FIVE PHASES.



treatment groups (SAT 1, SAT 2) indicates that the incidence of negative reactions in both groups seems unexpectedly high. The nature of the treatment, however, is one which can cause an initial "expectancy shock" when expectations about the trainer are not met. The result seems to be a more considerable increase in tension (cat 11) negativism (cat 12) than might be expected in other more orthodox treatments.

The SAT 1 and SAT 2 groups seem to follow each other closely. Up until period three the important difference is that the index of information considerably exceeds evaluation in SAT 2 but never exceeds evaluation in SAT 1. Beyond period three the major differences between these two groups are the continued predominance of the evaluation phase in SAT 1 and the difficulty of resolving communication in SAT 2. In SAT 1 the incidence of negative reactions undergoes an increase over time while positive reactions are quite stable, except for a decline between sessions three and six. In SAT 2 the incidence of negative reactions has peaked very early and stabilized at a high rate. Positive reactions increase only slightly over the life of the group.

Both groups demonstrate difficulty in problem solving. They seem to have established their patterns in the very early meetings and have remained quite "unstable" and non task oriented for the remainder of time. Affective relationships take up the majority of interaction in these

two groups with little time devoted to work.

Bales' nested hypothesis is not verified in these two groups. It appears as though they might be beginning to get down to some degree of problem solving towards the very late stages. This could be because the peculiar nature of the treatment has retarded the work aspect. It could also be an artifact of termination since, at the close of the course, they would like to indicate some form of achievement. In any case, within the allotted fifteen session these two groups do not follow the accepted "nesting" expectations.

A further more elaborate discussion of these two groups is provided in later chapters.

The two DCM groups are more conventional group treatments, and seem very much more in line with the expected "nesting phases".

In both DCM 1, 2 the communication phases predominates the first three sessions and is succeeded by evaluation. Also in both DCM 1, 2 the evaluation phase remains dominant until session ten when it is succeeded by control. Until the termination of the group, control is the issue in focus.

Negative reactions undergo successive increases in both DCM groups until session 12. After session 12 the DCM 1 group declines in negativism and DCM 2 increases. Positive reactions remain quite stable across both groups.

These results are extremely encouraging. The Bales' "nesting phase" hypothesis is almost totally confirmed. The typical nature of this learning situation seems to be a crucial factor in the development of a more natural progression of problem-solving.

As with the SAT groups these DCM results will be discussed further in a later chapter.

A recapitulation of the "equilibrium" hypothesis

In the solution of various task group problems which arise in the course of social interaction there is an equilibrium established. The equilibrium occurs between the task and the socio-emotional aspects of group member performance. It is Bales' contention that an increase in task activity, as generated through the desired solution of task problems such as orientation, evaluation, and control, results in a corresponding increase in social-emotional activity. This increase in social-emotional activity is necessary to re-establish a social system balance within the group. It might usually be demonstrated by a rise in positive and negative reactions as these task problems become of central concern. If the balance between task and social-emotional forces is not established there is an increase in expressive-malintegrative behaviour.

Various indices were described earlier (pgs. 52-56) to demonstrate the functional relationship which exists

between certain group problems and the expressive malintegrative behaviour. These indices were called:

- (a) Index of Difficulty of Communication = $7/7 + 6^*$
- (b) Index of Difficulty of Evaluation = $8/8 + 5$
- (c) Index of Difficulty of Control over Situation
= $9/9 + 4$
- (d) Index of Directiveness of Control = $4/4 + 6 + 5/5 + 6$
- (e) Overall Index = $(7/7 + 6) + (8/8 + 5) + (9/9 + 4) + 4/4 + 5 + (5/5 + 6)$
- (f) Index of Expressive-Malintegrative Behaviour =
$$\frac{(10 + 11 + 12)}{(10+11+12)+(1+2+3)}$$

Each of the indices a, b, c, d, e was considered to be a function of index f; such that an increase in any of the former indices would be reflected by a corresponding increase in the index of expressive-malintegrative behaviour.

A test of the "equilibrium" hypothesis

To test this hypothesis on the four task groups in this study the indices a, b, c, d, e, f were calculated for all fifteen sessions of each group. These indices are expressed in decimal form on tables 6-9.

* The symbol +, can be read as "and".

TABLE 6

Indices of instrumental and expressive interaction in SAT₁

Session	Maladaptive Behavior	Communication	Evaluation Difficulty	Difficulty of Control	Directiveness of Control	Overall
1	0.65	0.35	0.06	0.21	0.59	0.30
2	0.50	0.33	0.07	0.15	0.48	0.26
3	0.62	0.25	0.03	0.01	0.63	0.22
4	0.68	0.31	0.10	0.01	0.71	0.28
5	0.63	0.27	0.14	0.04	0.61	0.26
6	0.72	0.21	0.13	0.02	0.64	0.25
7	0.56	0.25	0.23	0.01	0.70	0.29
8	0.65	0.25	0.20	0.01	0.61	0.27
9	0.61	0.11	0.19	0.01	0.60	0.23
10	0.68	0.19	0.14	0.02	0.48	0.21
11	0.55	0.22	0.09	0.01	0.72	0.26
12	0.69	0.21	0.13	0.03	0.62	0.25
13	0.72	0.26	0.11	0.01	0.47	0.21
14	0.70	0.21	0.12	0.01	0.68	0.26
15	0.67	0.29	0.06	0.05	0.65	0.26

TABLE 7

Indices of instrumental and expressive interaction in SAT₂

Session	Maladaptive Behavior	Communication	Evaluation Difficulty	Difficulty of Control	Directiveness of Control	Overall
1	0.61	0.36	0.02	0.10	0.29	0.19
2	0.75	0.38	0.15	0.12	0.51	0.29
3	0.77	0.38	0.22	0.02	0.34	0.24
4	0.79	0.33	0.18	0.15	0.53	0.30
5	0.69	0.32	0.19	0.03	0.39	0.23
6	0.60	0.25	0.28	0.01	0.37	0.23
7	0.56	0.36	0.12	0.01	0.47	0.24
8	0.75	0.32	0.34	0.01	0.49	0.29
9	0.51	0.26	0.35	0.01	0.35	0.24
10	0.62	0.20	0.20	0.06	0.45	0.23
11	0.67	0.30	0.10	0.01	0.51	0.23
12	0.60	0.30	0.08	0.02	0.61	0.25
13	0.66	0.33	0.01	0.01	0.65	0.25
14	0.67	0.31	0.13	0.01	0.59	0.26
15	0.60	0.24	0.06	0.01	0.44	0.18

TABLE 8

Indices of instrumental and expressive interaction in DCM₁

Session	Maladaptive Behavior	Communication	Evaluation Difficulty	Difficulty of Control	Directiveness of Control	Overall
1	0.51	0.17	0.01	0.02	0.46	0.17
2	0.40	0.37	0.04	0.01	0.44	0.22
3	0.55	0.37	0.07	0.01	0.75	0.30
4	0.61	0.23	0.11	0.00	0.72	0.27
5	0.68	0.15	0.17	0.01	0.60	0.23
6	0.55	0.34	0.23	0.06	0.67	0.32
7	0.58	0.15	0.21	0.01	0.76	0.28
8	0.62	0.16	0.15	0.01	0.65	0.24
9	0.76	0.18	0.14	0.01	0.70	0.26
10	0.61	0.27	0.01	0.05	0.77	0.28
11	0.68	0.18	0.11	0.05	0.68	0.26
12	0.51	0.16	0.10	0.05	0.76	0.27
13	0.55	0.10	0.08	0.03	0.67	0.22
14	0.54	0.23	0.05	0.01	0.70	0.25
15	0.34	0.29	0.03	0.03	0.71	0.27

TABLE 9

Indices of instrumental and expressive interaction in DCM₂

Session	Maladaptive Behavior	Communication	Evaluation Difficulty	Difficulty of Control	Directiveness of Control	Overall
1	0.51	0.15	0.00	0.03	0.49	0.17
2	0.70	0.47	0.12	0.02	0.59	0.30
3	0.69	0.42	0.11	0.01	0.73	0.32
4	0.69	0.27	0.07	0.02	0.74	0.28
5	0.78	0.25	0.13	0.01	0.68	0.26
6	0.74	0.23	0.22	0.02	0.73	0.30
7	0.68	0.34	0.22	0.01	0.74	0.32
8	0.68	0.19	0.17	0.01	0.59	0.24
9	0.73	0.20	0.24	0.01	0.71	0.29
10	0.60	0.22	0.07	0.07	0.69	0.26
11	0.69	0.24	0.09	0.04	0.64	0.25
12	0.74	0.20	0.19	0.02	0.66	0.27
13	0.80	0.37	0.21	0.08	0.52	0.29
14	0.76	0.19	0.10	0.02	0.69	0.25
15	0.54	0.26	0.02	0.03	0.63	0.24

FIGURE 21. RELATIONSHIP OF EXPRESSIVE-MALINTEGRATIVE INDEX TO OVERALL INDEX FOR SAT₁.

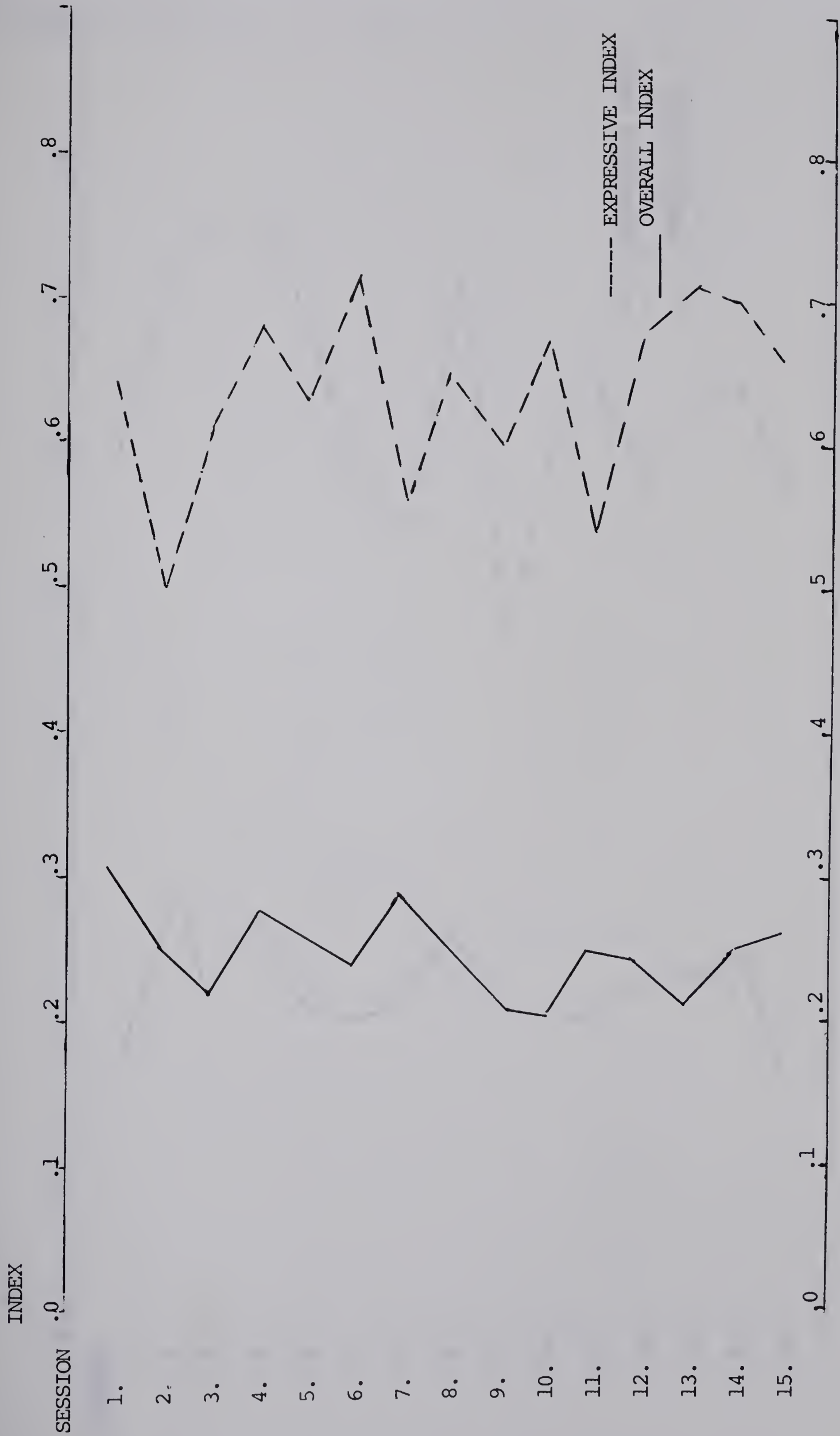


FIGURE 22. RELATIONSHIP OF EXPRESSIVE-MALINTEGRATIVE INDEX TO OVERALL INDEX FOR SAT2.

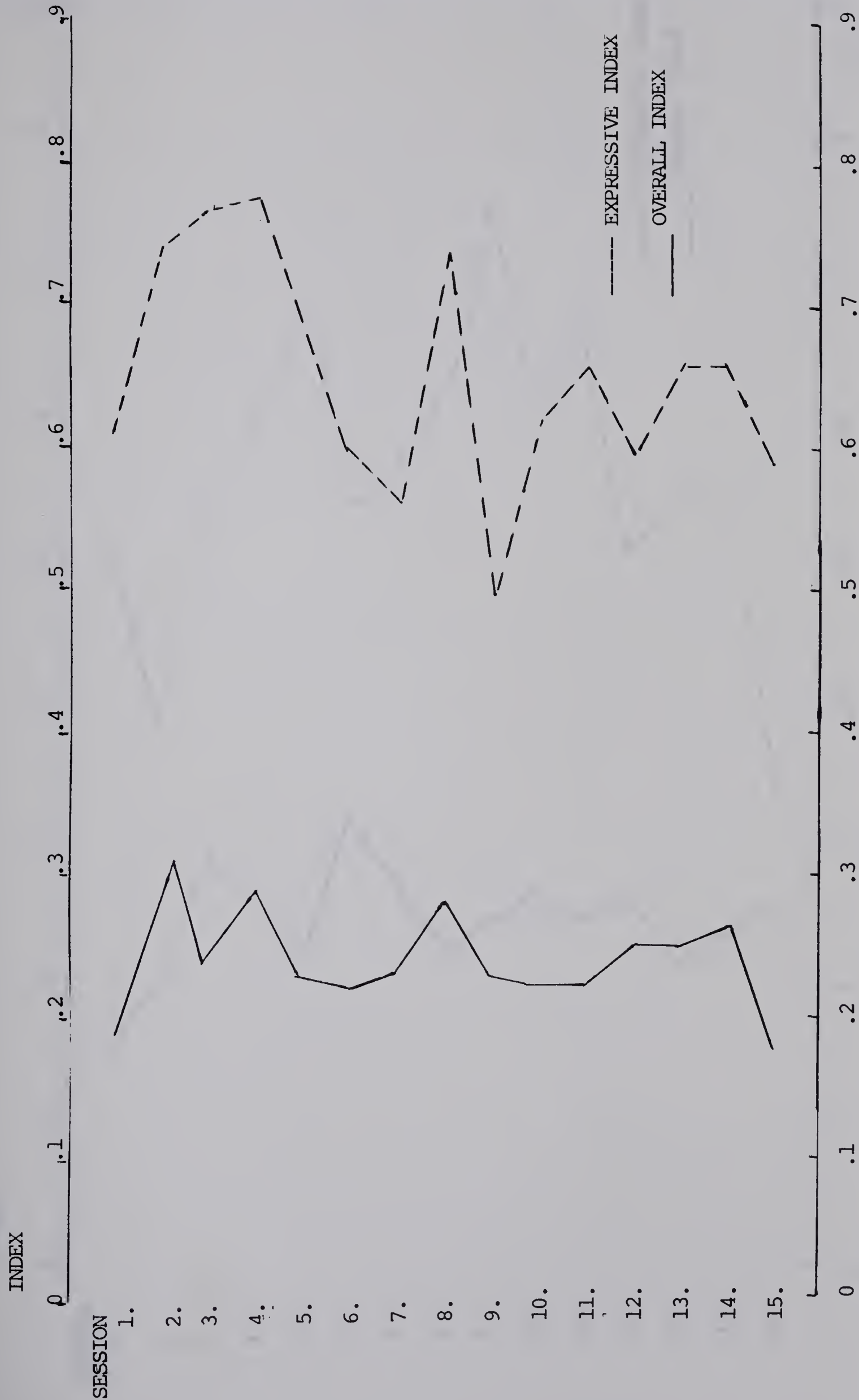


FIGURE 23. RELATIONSHIP OF EXPRESSIVE-MALINTEGRATIVE INDEX TO OVERALL INDEX FOR DCM₁.

INDEX

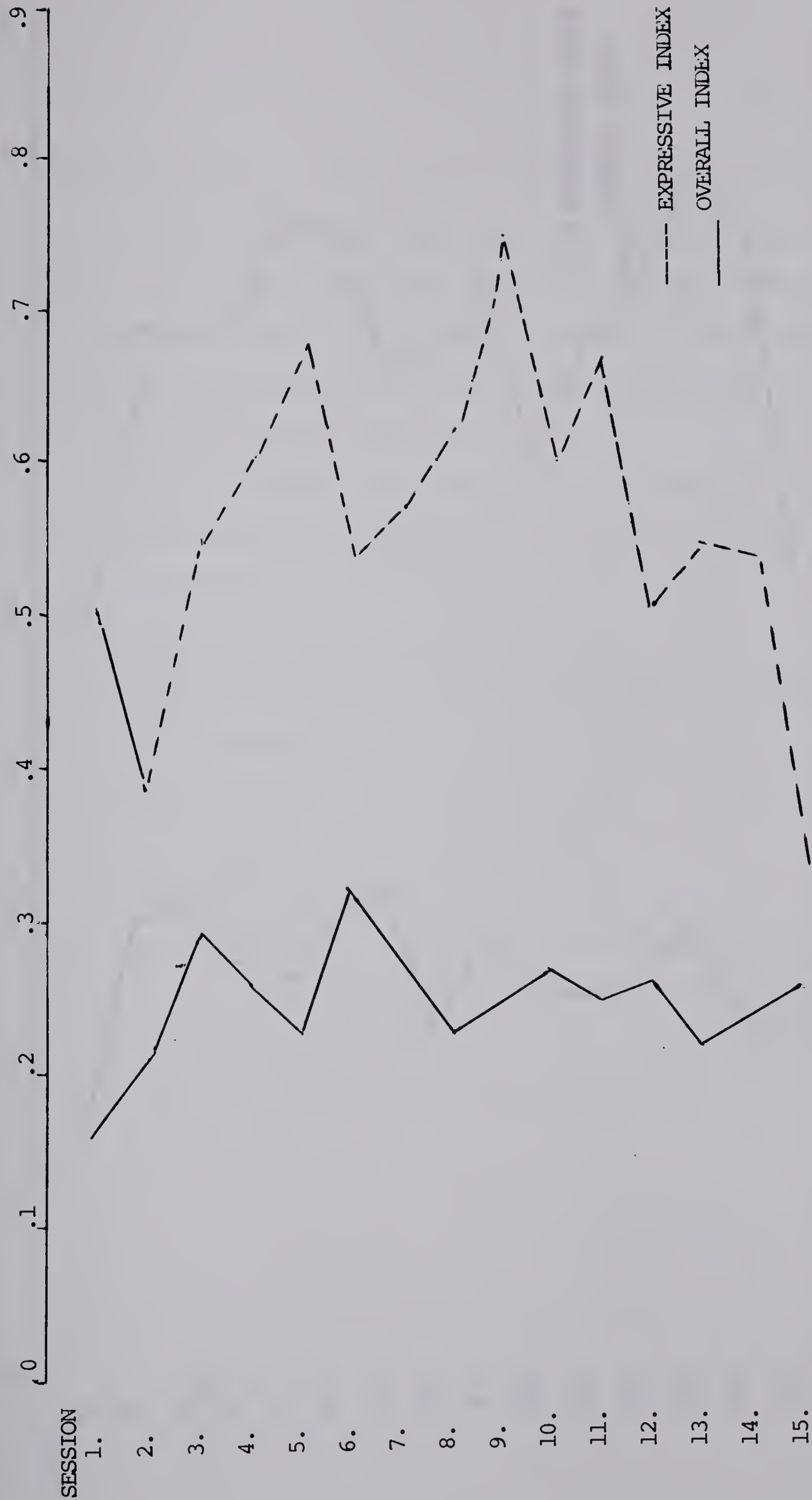
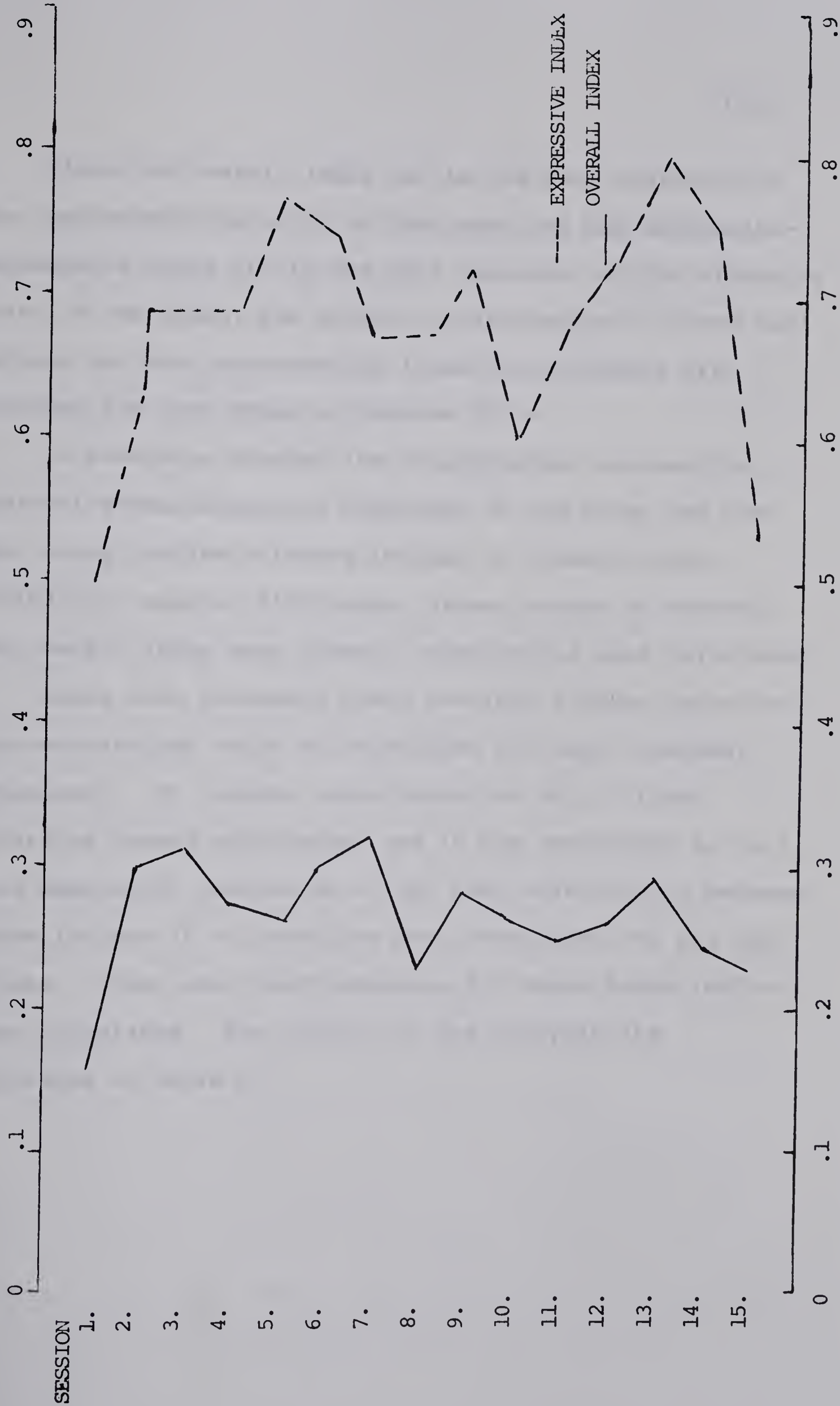


FIGURE 24. RELATIONSHIP OF EXPRESSIVE-MALINTEGRATIVE INDEX TO OVERALL INDEX FOR DCM₂.

INDEX.



Since the overall index (e) is the best indicator of the instrumental activity of the group and the expressive-maladaptive index (f) is the best indicator of the affective state of the group, the graphic relationships of these two indices and the corresponding linear relationship are provided for each group on figures 21-24.

To determine whether the relationships between the expressive-malintegrative behaviour of the group and the more group problem oriented indices of communication, evaluation, control difficulty, directiveness of control, and overall index were linear, correlations were calculated.

Since each treatment group provided fifteen occasions, the correlations could be calculated for each treatment separately. To compute correlations on only fifteen occasions seemed unreliable, and it was considered to be a more meaningful indication of the time relationship between these indices if all sessions were considered for all four groups. There were sixty sessions for which these indices were calculated. The results of the analysis are available on Table 10.

TABLE 10

Intercorrelations of indices of group interaction

(1) Correlation of Expressive-Malintegrative Index and	r	Probability associated with r
(2) Communication index	.099	. 45 N.S.
(3) Evaluation index	.353	.005 sig.
(4) Difficulty of Control index	.047	.720 N.S.
(5) Directiveness of Control index	.025	.849 N.S.
(6) Overall index	.277	.031 sig.

Discussion:

Results of the intercorrelations support Bales' contention that the relationship between expressive-malintegrative behaviour and the solutions of problem situations in the group is functionally linear. (Although not all correlations are significantly high).

The best indicator of this relationship is the correlation of the expressive-malintegrative index and the overall index. Since the overall index is a cumulative index of all the group problem indices, the significant correlation ($p < .03$) gives some support to the contention of "equilibrium" within the treatment groups.

Visual descriptions of the linear relationships between the expressive-malintegrative behaviour and the overall behaviour index are provided by Figures 21-24. Three of the groups (SAT_2 , DCM_1 , DCM_2 ,) seem to demonstrate this linear relationship more readily than does the fourth (SAT_1).

The relationships between expressive-malintegrative behaviour and the indice of communication, difficulty of control, and directiveness of control are not significant. The rates of task activity in the asking for information, asking for suggestion, giving opinion and giving suggestion categories do not result in corresponding increases in social-emotional activity. At least not when the total treatment group results are considered. The task categories which best predict the increase in emotional reactions from others are those of asking for opinion. The inconclusive results in the relationship between difficulty of control and expressive malintegrative behaviour should be considered with the understanding that the category comprising this index was the least used (less than 2% of all interaction). The small amount of interaction initiated here in category 9, (asking for suggestion) would contribute in turn, to less reaction in category 4 (giving suggestions) since each act in category 9 would initially call for a reaction in category 4. This would result in a weaker index of directiveness of control since it relies on category 4. This direct relationship between these two indices helps in the understanding of the non-significant results for both.

A Recapitulation of the "Role Differentiation" Hypothesis

It has been mentioned (p. 56) that changes in the

functional problems of the group which result from the establishment, maintenance or dissolution of phases result in a variety of social relationships being established in the group. Initially they are generated from the task-social-emotional dichotomy. At a later stage various individuals both volunteer and are nominated to adopt other specific roles which meet the particular needs of the group membership at important times in the history of the group. An increase in overall status is frequently the result of the adoption of a fundamental role in the group. As the role outlives its present usefulness the status decreases and a new incumbent, with a new social function to perform, may arrive upon the collective scene. The result is a variety of roles, at various times, and fluctuations in the status of significant group members over the lifetime of the group.

This development of role differentiation is accompanied by a prevailing interest on the part of the group membership to maintain a balance wherever possible in the distribution of resources, power and status.

A number of indices were developed by Bales to provide evidence of both role diffusion and relative balance of the system. These were previously described as:

- (a) CR index of direct access to resources
- (b) BR index of indirect access to resources

(c) ADR index of attempted control

(d) GS index of generalized status = $\frac{CR + BR + ADR}{3}$

A Test of the "Role Differentiation" Hypothesis

A basic understanding of the above indices would indicate that in order to acquire a value of any magnitude a group member must be a verbal participant. Those individuals who are the most verbal will often receive the highest values. In this respect the indices are biased, but fortunately they are biased in a favourable direction as verbal fluency is often considered a status symbol in small learning groups.

It became necessary to determine who were the highest interactors in the four treatment groups. An examination of their total interaction for fifteen sessions made possible the selection of the top four or five interactions in each group. For purposes of anonymity the members are referred to by initials and identification numbers. Their identification and corresponding total interaction appear on Tables 11-14.

The corresponding values on each of the four indices (a, b, c, d) above were then determined to compare the group membership with these high interactors over the fifteen sessions of their corresponding groups. (Tables 15-18.)

TABLE 11

Number of Acts Initiated and Received by Each Person

GROUP SAT₁

Person		SECTION								TOTAL	
		A		B		C		D		I	R
		I	R	I	R	I	R	I	R		
S	1	301	152	118	46	34	11	424	386	877	595
P	2	342	233	165	42	11	19	733	487	1251	781
G(63)	3	348	306	347	120	41	71	841	783	1577	1280
E(29)	4	227	166	165	74	21	20	763	595	1176	855
M(66)	5	924	732	858	342	145	82	1319	1181	3246	2337
L(40)	6	541	408	328	167	59	63	927	865	1855	1503
J(3)	7	942	509	387	204	75	39	1128	890	2532	1642
E	8	174	76	74	14	6	9	304	256	558	355
K(2)	9	530	247	571	157	66	47	911	739	2078	1190
E	10	185	124	89	57	39	9	339	254	652	444
B(30)	11	626	482	388	182	48	35	1399	888	2461	1587
M	12	213	161	161	63	12	18	465	438	851	680
Tr.	13	16	167	229	20	6	6	182	625	433	818

TABLE 12

Number of Acts Initiated and Received by Each Person

GROUP SAT₂

Person		SECTION								TOTAL	
		A		B		C		D		I	R
		I	R	I	R	I	R	I	R		
Su	1	163	96	65	19	15	15	582	419	825	549
P (1)	2	1735	996	612	356	187	125	1769	1860	4303	3337
L	3	584	414	106	79	48	25	721	540	1459	1058
N (48)	4	127	112	103	23	8	19	798	524	1036	678
R (89)	5	683	520	388	155	106	72	1379	1016	2556	1763
Sh	6	263	166	53	52	21	24	752	523	1089	765
Da	7	194	142	34	9	12	14	1024	722	1264	887
J (80)	8	849	594	228	142	91	58	1191	1080	2359	1874
G	9	265	222	106	74	21	23	877	737	1269	1056
Do(42)	10	544	375	195	87	41	45	1211	939	1991	1446
L (92)	11	984	511	320	152	38	62	1458	1153	2800	1878
Tr	12	21	85	231	15	3	8	301	946	557	1054

TABLE 13

Number of Acts Initiated and Received by Each Person

GROUP DCM.
1.

Person	SECTION								TOTAL	
	A		B		C		D		I	R
	I	R	I	R	I	R	I	R		
C(44) 1	487	333	292	208	34	40	727	497	1540	1078
B(81) 2	335	230	180	227	34	22	555	409	1104	888
F(20) 3	349	347	254	165	26	40	650	417	1279	969
D 4	212	148	141	107	23	8	305	218	681	481
L 5	144	121	88	44	8	14	288	229	528	408
T(25) 6	363	358	290	248	37	23	610	458	1300	1087
S 7	130	68	55	29	10	7	205	174	400	278
C 8	113	60	37	18	2	5	188	154	340	237
M(32) 9	510	484	599	209	31	33	582	522	1722	1248
P 10	205	158	196	138	41	16	398	384	840	696
M(94) 11	615	372	374	276	44	34	702	521	1735	1203
R 12	211	123	65	40	18	4	482	441	776	608
Tr 13	1424	1148	2821	1038	330	182	1100	1776	5675	4144

TABLE 14

Number of Acts Initiated and Received by Each Person

GROUP DCM
2

Person	SECTION								TOTAL	
	A		B		C		D		I	R
	I	R	I	R	I	R	I	R		
G(64) 1	343	264	332	211	50	52	682	544	1407	1071
H(82) 2	314	264	294	200	35	26	652	474	1295	964
D(73) 3	261	351	139	284	50	46	1394	969	1844	1650
C 4	172	136	40	46	10	9	567	400	789	591
J 5	254	179	96	92	18	17	1173	1022	1541	1310
Br 6	163	160	260	149	30	23	451	352	904	684
Bq(23) 7	205	326	299	202	36	25	1087	735	1627	1288
Da(87) 8	367	264	283	259	65	17	744	530	1459	1070
K(90) 9	328	247	288	183	36	33	576	427	1228	890
S 10	114	93	62	74	5	7	252	185	433	359
Di 11	101	81	78	46	8	17	270	216	457	360
H(82) 12	122	99	56	44	6	15	275	172	459	330
A 13	11	10	8	4	0	3	25	18	44	35
Tr 14	1308	827	3140	1126	412	202	1115	2546	5975	4711

TABLE 15

Overall power relationship of highly interacting members to other group members after 15 sessions.

SAT₁

Indices of Direct (CR) and Indirect (BR) Access to Resources, Degree of Control (ARD) and Generalized Status (GS)

Person 1:	CR = 2, BR = 1, ARD = 1, GS = 1
Person 2:	CR = 3, BR = 1, ARD = 1, GS = 2
Person 3:	CR = 13, BR = 2, ARD = 3, GS = 6
Person 4:	CR = 4, BR = 1, ARD = 1, GS = 2
Person 5:	CR = 15, BR = 6, ARD = 8, GS = 10
Person 6:	CR = 11, BR = 3, ARD = 3, GS = 6
Person 7:	CR = 7, BR = 4, ARD = 4, GS = 5
Person 8:	CR = 2, BR = 0, ARD = 0, GS = 1
Person 9:	CR = 8, BR = 3, ARD = 4, GS = 5
Person 10:	CR = 2, BR = 1, ARD = 1, GS = 1
Person 11:	CR = 6, BR = 4, ARD = 4, GS = 5
Person 12:	CR = 3, BR = 1, ARD = 1, GS = 2
Person 13:	CR = 1, BR = 0, ARD = 1, GS = 1

TABLE 16

Overall power relationship of highly interacting members to other group members after 15 sessions

SAT₂

Indices of Direct (CR) and Indirect (BR) Access to Resources, Degree of Control (ARD) and Generalized Status (GS)

Person	1: CR = 3, BR = 0, ARD = 0, GS = 1
Person	2: CR = 21, BR = 10, ARD = 9, GS = 13
Person	3: CR = 4, BR = 2, ARD = 2, GS = 3
Person	4: CR = 3, BR = 1, ARD = 1, GS = 2
Person	5: CR = 12, BR = 4, ARD = 5, GS = 7
Person	6: CR = 4, BR = 2, ARD = 1, GS = 2
Person	7: CR = 2, BR = 0, ARD = 0, GS = 1
Person	8: CR = 10, BR = 4, ARD = 3, GS = 6
Person	9: CR = 4, BR = 2, ARD = 1, GS = 2
Person	10: CR = 8, BR = 2, ARD = 2, GS = 4
Person	11: CR = 10, BR = 5, ARD = 4, GS = 6
Person	12: CR = 1, BR = 0, ARD = 1, GS = 1

TABLE 17

Overall power relationship of highly interacting members to other group members after 15 sessions

DCM₁

Indices of Direct (CR) and Indirect (BR) Access
to Resources, Degree of Control (ARD) and
Generalized Status (GS)

Person	1: CR = 6, BR = 3, ARD = 2, GS = 4
Person	2: CR = 3, BR = 4, ARD = 1, GS = 3
Person	3: CR = 6, BR = 3, ARD = 2, GS = 4
Person	4: CR = 1, BR = 2, ARD = 1, GS = 1
Person	5: CR = 2, BR = 1, ARD = 1, GS = 1
Person	6: CR = 4, BR = 4, ARD = 2, GS = 3
Person	7: CR = 1, BR = 0, ARD = 0, GS = 0
Person	8: CR = 1, BR = 0, ARD = 0, GS = 0
Person	9: CR = 5, BR = 3, ARD = 5, GS = 4
Person	10: CR = 3, BR = 2, ARD = 1, GS = 2
Person	11: CR = 5, BR = 4, ARD = 3, GS = 4
Person	12: CR = 1, BR = 1, ARD = 0, GS = 1
Person	13: CR = 29, BR = 15, ARD = 21, GS = 22

TABLE 18

Overall power relationship of highly interacting
members to other group members after 15 sessions

DCM₂

Indices of Direct (CR) and Indirect (BR) Access
to Resources, Degree of Control (ARD) and
Generalized Status (GS)

Person	1:	CR = 7,	BR = 3,	ARD = 2,	GS = 4
Person	2:	CR = 3,	BR = 3,	ARD = 2,	GS = 3
Person	3:	CR = 6,	BR = 4,	ARD = 1,	GS = 4
Person	4:	CR = 1,	BR = 1,	ARD = 0,	GS = 1
Person	5:	CR = 2,	BR = 1,	ARD = 0,	GS = 1
Person	6:	CR = 3,	BR = 2,	ARD = 2,	GS = 2
Person	7:	CR = 3,	BR = 3,	ARD = 2,	GS = 3
Person	8:	CR = 2,	BR = 4,	ARD = 2,	GS = 3
Person	9:	CR = 4,	BR = 3,	ARD = 2,	GS = 3
Person	10:	CR = 1,	BR = 1,	ARD = 0,	GS = 1
Person	11:	CR = 2,	Br = 1,	ARD = 0,	GS = 1
Person	12:	CR = 2,	BR = 1,	ARD = 0,	GS = 1
Person	13:	CR = 0,	BR = 0,	ARD = 0,	GS = 0
Person	14:	CR = 27,	BR = 15,	ARD = 14,	GS = 19

Discussion:

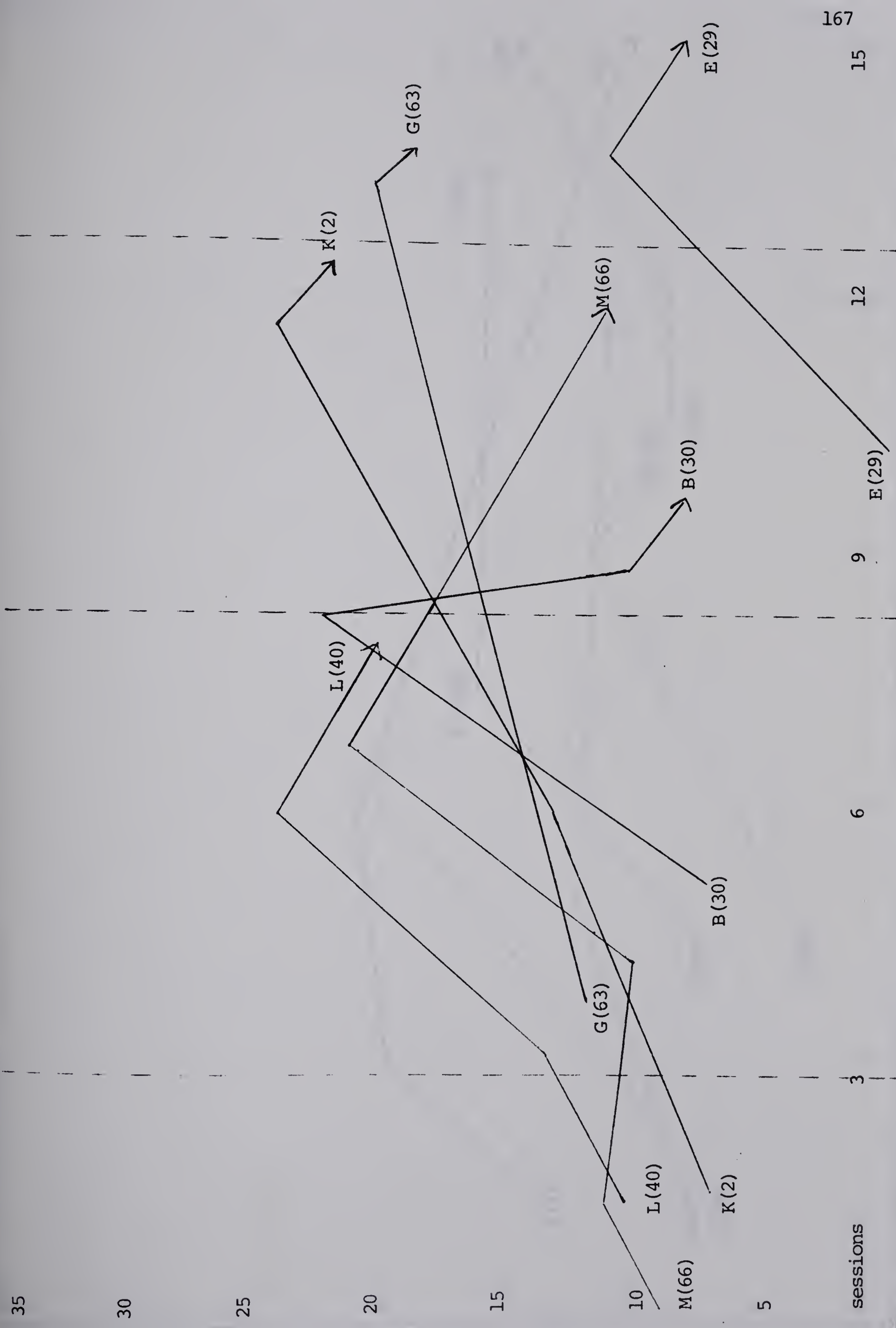
An examination of these tables gives an indication of the variation across the membership on these particular indices.

The index which is considered the best indicator of total group stature is the "index of generalized status" (GS). This is an average of the other indices combined. To demonstrate the rise and fall of various significant members across the life of their groups their GS indices were compared in graphic form. To further determine whether the individuals primarily influential in the phase movements of their groups a composite graph was developed. From the test for "nesting phases" (p.139) it could be shown that each group went through various phases, although not necessarily in similar sequences or similar time periods. Labelling each of the phases and determining their time periods was still possible for each group. After doing this it was possible to superimpose the status developments of each of the significant group members. The results are presented as Figures 25-8.

An analysis of the relationship between high member interaction and group phase movement, as determined through Figures 25-8 reports that particular group members acquire, maintain, and lose status over the life of the group. The figures also demonstrate how this acquisition or loss

FIGURE 25. STATUS RELATIONSHIPS OF HIGH INTERACTORS IN SAT₁ DURING GROUP PHASES

generalized status index



sessions

FIGURE 26. STATUS RELATIONSHIPS OF HIGH INTERACTORS IN SAT₂ DURING GROUP PHASES

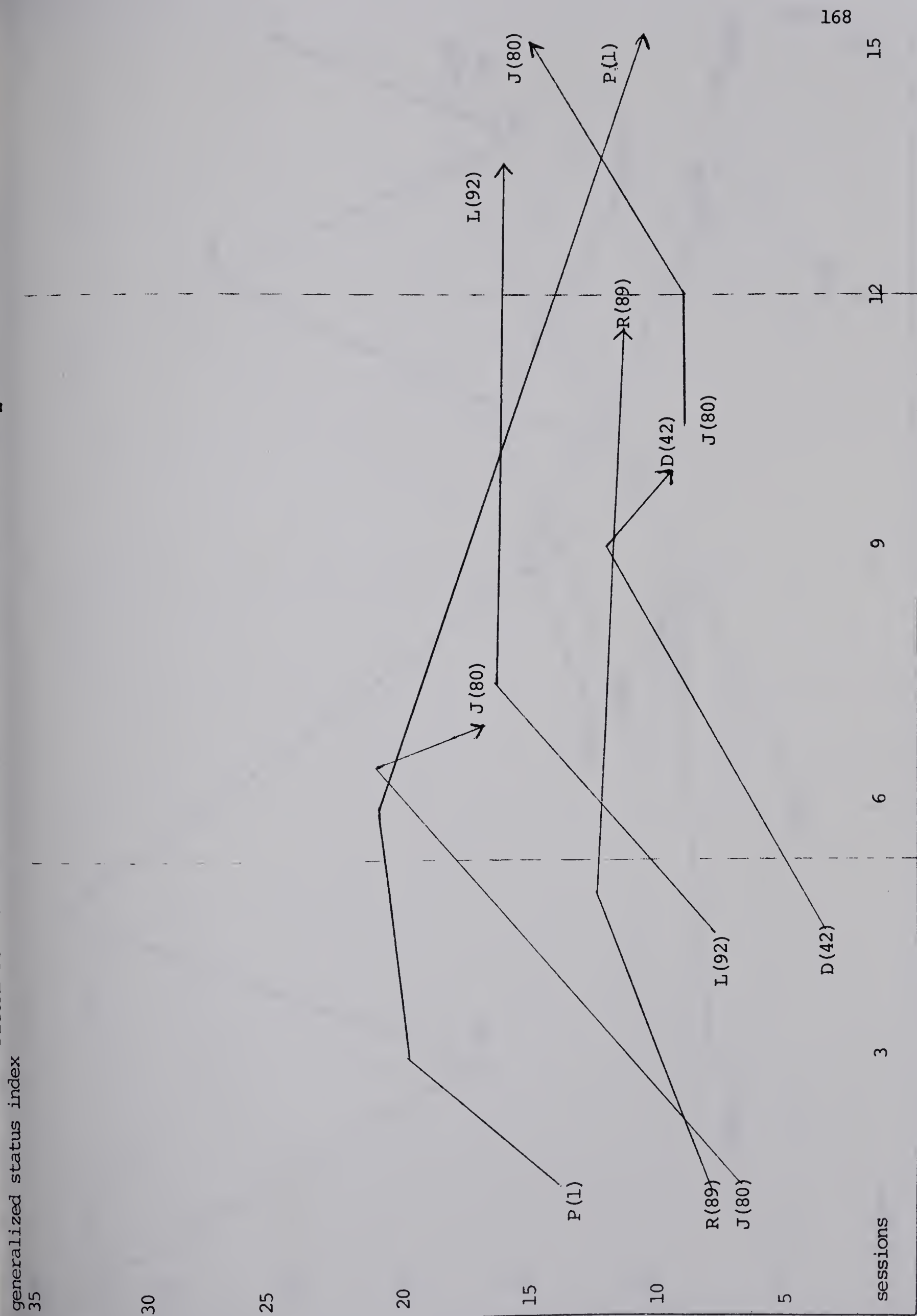
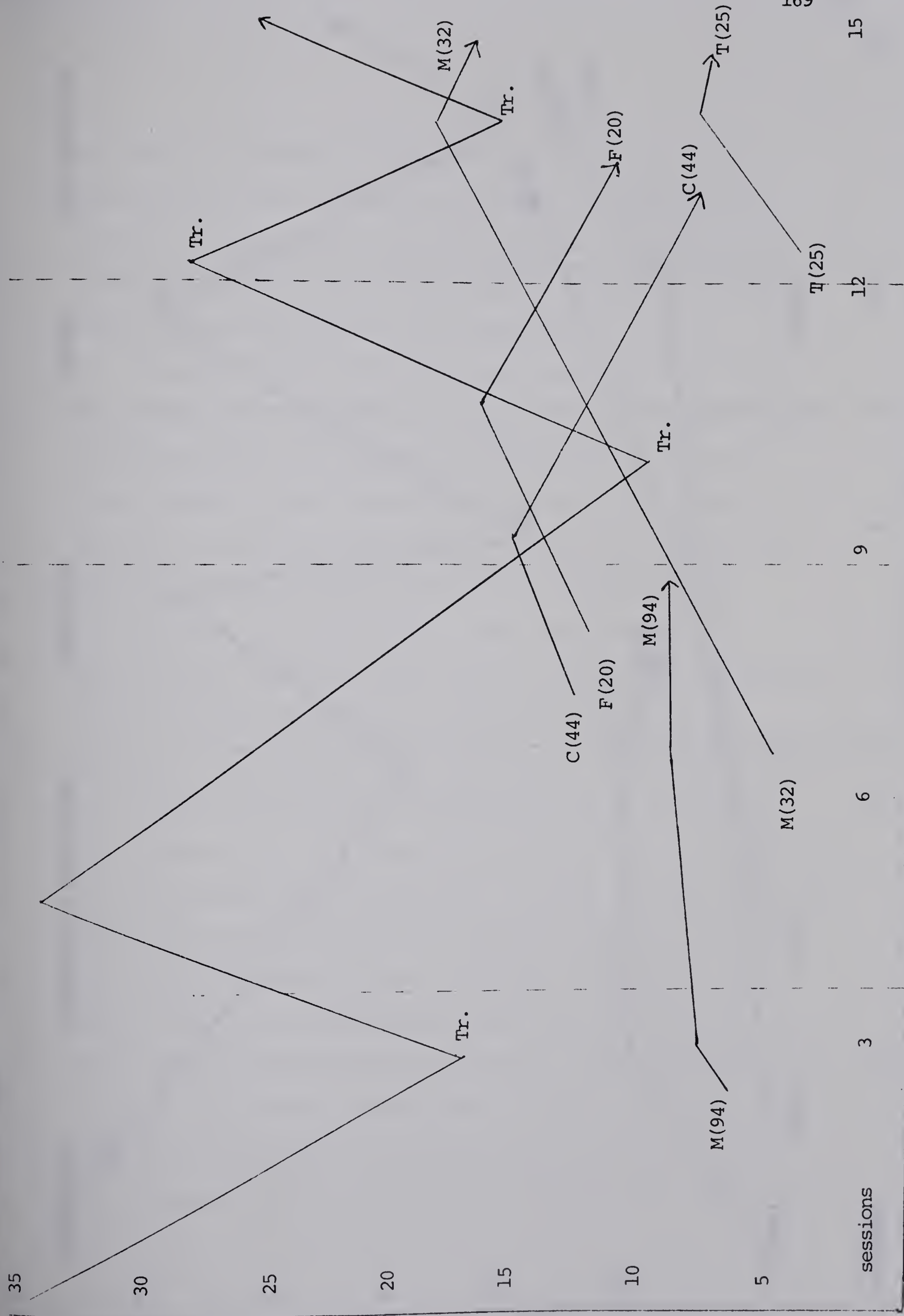


FIGURE 27. STATUS RELATIONSHIPS OF HIGH INTERACTORS IN DCM₁ DURING GROUP PHASES

generalized status index



sessions

FIGURE 28. STATUS RELATIONSHIPS OF HIGH INTERACTORS IN DCM₂ DURING GROUP PHASES

generalized status index

35

30

25

20

15

10

5

sessions

ORIENTATION

EVALUATION & NEGATIVISM

NEGATIVISM

CONTROL

HIGH AFFECTION

Tr.

Tr.

Tr.

Tr.

D(73)

D(87)

H(82)

G(64)

D(73)

D(87)

N(82)

3

6

9

12

15

170



of status is related to the present "phase" of group development, such that as one problem area dissipates, another is encountered. The group members who were initially influential become less so and other individuals of lesser status now come to the forefront.

Examples of this are numerous. The history of the SAT₁ group is a good case in point. When this group began the members who were first to attain high status were M(66), L(40). Both these members were task oriented, positive individuals who were concerned with the initial communication of group norms and the development of co-operation among all of the other group members. Additionally they both spent time in organizing discussion about the group task, as it had been outlined by the trainer. Their predominant activity in these directions was a major influence in moving the group from initial task ambivalence to a stage of task evaluation. Coincidentally any uncomfortable emotional feelings generated through this task activity were very likely a factor in the gradually increasing status of G(63). This person was much less positive and considerably less favourable towards the trainer and his arbitrary task assignment. In fact it is G(63) who initiates early discussion about physically removing the trainer from the group. This person becomes the spokesman for the negative faction in

the group. He remains in control of this negative sub-group until challenged in the later sessions. In addition to the negative spokesman G(63) there are other positive spokesmen who seem to counteract the feelings being expressed by G(63). These are K(2), and B(30). K(2) represented the extremely positive but submissive and dependent members of the group. The hostile reactions towards the trainer caused many conflicting feelings in these members. K(2) volunteered, and was chosen to speak in favour of the trainer, to advocate a more personal oriented "encounter type" experience and to promote good feeling and comradeship. B(30) was a more aggressive member but still very positive. An active participant she assisted in restoring some cohesion in the group, in the face of rising negativism, by positive confrontation and the subtle exposure of the "goodness" in people.

The result of these two, more positive, individuals becoming prominent was a movement from evaluation of the task towards a positive and negative conflict. A polarizing effect in the group which resulted in an ensuring control struggle.

The opportunist in the group was E(29). Lying in the weeds, so to speak, he moved up very quickly in status as the initial status of M(66), L(40), and B(30) waned in

the face of more vehement opposition. The confrontation of the positive-negative camps, of which K(2) and G(63) were the major spokesmen, resulted in the negative faction holding the best hand when it came time for the showdown. At this point E(29) challenged G(63) for the leadership of the group and used M(66) as the whipping boy. A lengthy discussion of the individual careers of these prominent members is considered in chapter six. At this point it is only necessary to say that the study of their careers lends credence to the historical description of this group as it has just been outlined.

Similar descriptions of the relationship played by high interactors in the phase movement of the SAT₂, DCM₁, and DCM₂ groups can be delineated. For reasons of parsimony these three groups and the influence of their high interactors will be considered in much less detail.

SAT₂:

The initial acquisition of high status by P(1) was mainly responsible for the very negative, long lasting introductory phase. Challenged only by R(89) as a positive influence the overwhelming activity of P(1) kept the group on a personal fantasy trip. This individual, as well as J(80), was very power oriented and demanding of attention. The results were negative feelings and norms of deviance

and non-task activity.

Positive-negative conflict was encountered when D(42), R(89) represented the positive faction and L(92), P(1) represented the personal-oriented, deviant faction. The resulting control vacuum was filled by J(80) who rebounded from status loss, (a result of an initial competition with P(1) in the earlier sessions).

DCM₁:

The overwhelming influence of the trainer in this group is obvious. Where the trainer in the SAT groups was conspicuous in his lack of status the trainer in the DCM groups is just as conspicuous in his high status.

M(94) performed a co-operative, task oriented function in the early sessions, unable to compete with the highly verbal trainer this member provided the group with "translations" of the trainer comments until the task had been sufficiently illuminated. He then dropped from any major influence. Reactions against the trainer, who was so very controlling and directive were led by C(44) and countered somewhat by F(20). This corresponds to the conflicting emotional periods in the SAT groups. The control

struggle followed and M(32), who had gradually been building up allegiances, challenged the trainer by reacting against the task and being deviant and unco-operative. The trainer was equal to the challenge and assumed control again towards the close of the sessions.

DCM₂:

Again the trainer who was consciously attempting to perform exactly similar roles in each group, is conspicuous in his high status. In this group he is never succeeded by any other member. It might well be that the trainer was undergoing some learning in the first group, which met two hours earlier, and may have reacted unconsciously to prevent any authority challenges. In any case he assumed control early and was never headed. G(64) was the positive "translator" of the group task in this group in a similar fashion to M(94) in DCM₁. In the same way as M(94) he lost status as the evaluation period ended. It is as though he had outlived his usefulness.

The negative reactions against the trainer, his task, and other group members began a little earlier in this group. D(73) was the most vociferous in his negativism and became the major anti-task,

anti-trainer spokesman. D(87) was domineering, talkative and very power oriented and, much like P(1) in SAT₂, elicited negative feelings from others. The control session was brief and featured D(73) confronting the highly controlling trainer. It was no contest. The trainer unfortunately brought on a premature termination in this group by having an evaluation period in session thirteen. The result seemed to bring on an emotional backlash as a response to any task activity after this point.

In overall summary it appears that the trainer in each treatment group received an initial support from a positive, task-spokesman. Unless the trainer defended himself (as in the DCM group) the dependent members became upset and rallied to his defense. A positive-negative showdown resulted and was followed by a control vacuum. If an opportunist was present who had high power needs this was a convenient time to move.

Bales' contention of initial task-social-emotional role diffusion seems very acceptable. Task behaviour on the part of group members, other than the trainer, is the initial member reaction. The increase in social-emotional behaviour which is a systematic result of this task activity causes emotional "roles" to surface. Unstable behaviour follows and various "role"

spokesmen appear on both positive-negative, task-anti-task dimensions. The vacuum created causes the more latent control oriented member to move in. Unless the trainer's role is to be very directive and controlling his influence in this progression seems miniscule.

A. Recapitulation of the Overall Group Phase Movement Hypothesis

Bales (1950, 1970) and Dunphy (1968) have demonstrated that the group, viewed as a collectivity rather than as conspicuous individuals, will tend to move distinctly across all dimensions in three dimensional space. The movement within the three dimensional space should correspond with the occurrence of problem phases in the groups. It is then possible to determine the onset, or termination of a problem phase by tracing the group movement across the three dimensional space.

The expected movement of treatment groups, as formulated by R.F. Bales, is provided on Figure 10, (p. 93). Additionally provided are the actual movements of two self-analytic groups trained by Dunphy, and Bales. The factors II and III in the Dunphy model seem to correspond with the Forward-Backward, and Upward-Downward dimensions on the Bales model. Unfortunately, in the two-dimensional space of the tables, the F-B dimension of Bales is only written in whenever movement is expected and the

Positive-Negative dimension is provided.

Test for Overall Movement of Treatment Groups Over Phases

To compare the general movement through three dimensional space, of each of the treatment groups, the fifteen sessions of each treatment are divided into five equal phase periods.

To determine the locations of each group in this three dimensional group space during these periods, the total number of directional components accumulated by the overall group membership for each session, was located through the IPA computer analysis. (A discussion of the method by which these directions are originally computed is available in a later chapter.) Each three sessional phase was then computed and the totals are provided on Table 19 (p. 179).

Graphs were constructed to plot the locations and eventual movements of each of the groups during the five phase periods. These are provided as Figures 25-32.

Although the groups visually occupy one particular space there was directional movement over sessions, within the major group location. For example, even the SAT₂ group remained in UNF space they were more or less negative, or more or less forward, during particular phases. To demonstrate this movement and to compare the treatment groups a table is provided (p. 179).

TABLE 19.

Total number of directional components accumulated by complete group membership after each three sessions phase: as calculated by I.P.A.

Session	SAT ₁	SAT ₂	DCM ₁	DCM ₂
3	90U 11N 71F	94U 12N 50F	134U 3N 45F	107U 3N 56F
6	123U 7P 53F	105U 18N 33F	100U 12N 63F	108U 2P 46F
9	91U 3P 30F	99U 13N 21F	95U 0 54F	105U 11N 34F
12	107U 2P 52F	87U 20N 40F	98U 4P 57F	107U 4P 45F
15	116U 5P 51F	95U 10N 45F	111U 6N 47F	97U 2N 48F

TABLE 20.

Group space movement of treatment groups across each three session phase

	Session 3	Session 6	Session 9	Session 12	Session 15
SAT ₁	UNF	UPB	DNB	UF	UP
SAT ₂	UNF	UNB	DPB	DNF	UP
DCM ₁	UNF	DNF	DPB	P	UNB
DCM ₂	UNF	PB	NB	PF	DN

FIGURE 29. SAT₁ GROUP MOVEMENT ACROSS PHASES.

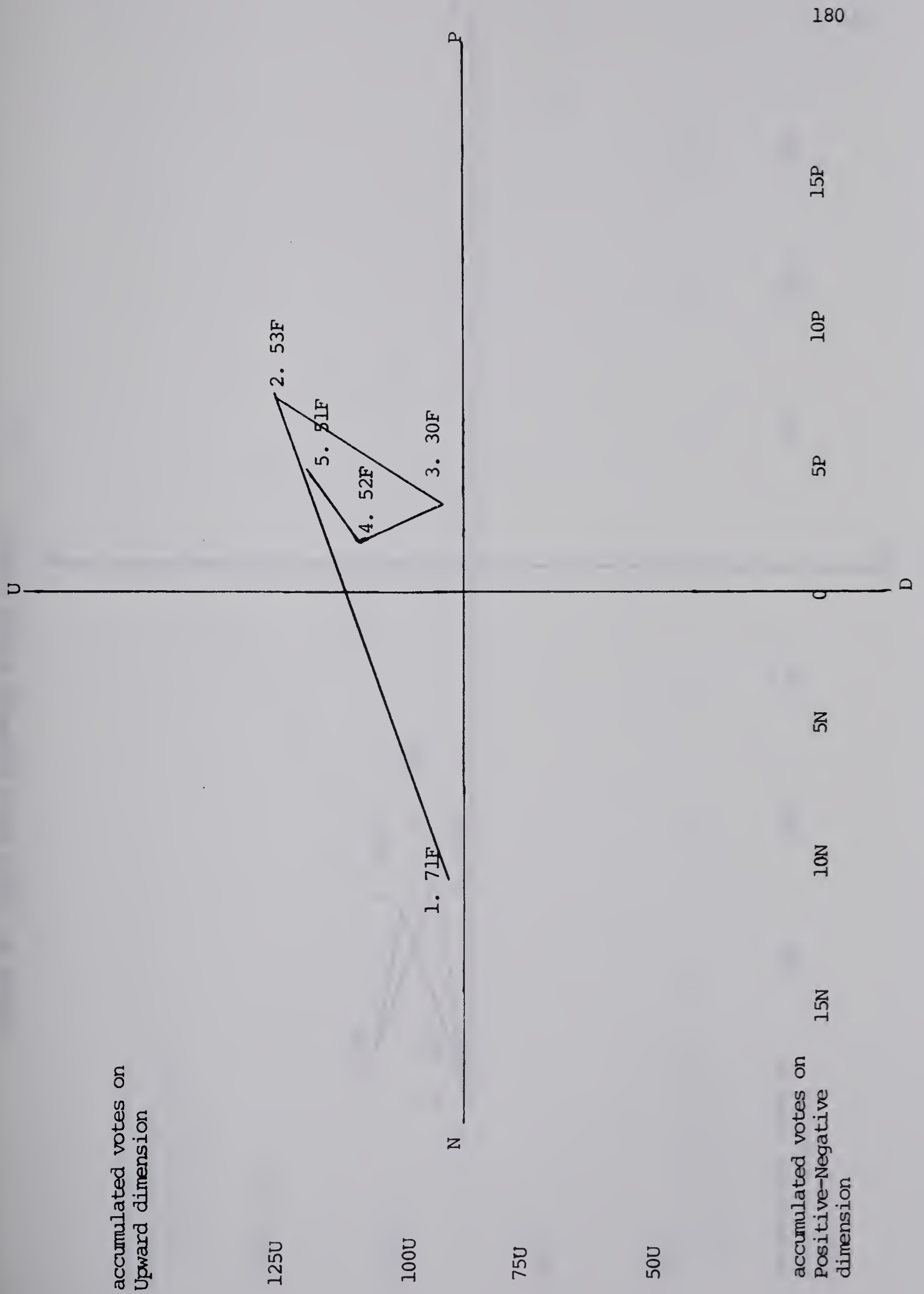


FIGURE 30. SAT₂ GROUP MOVEMENT ACROSS PHASES

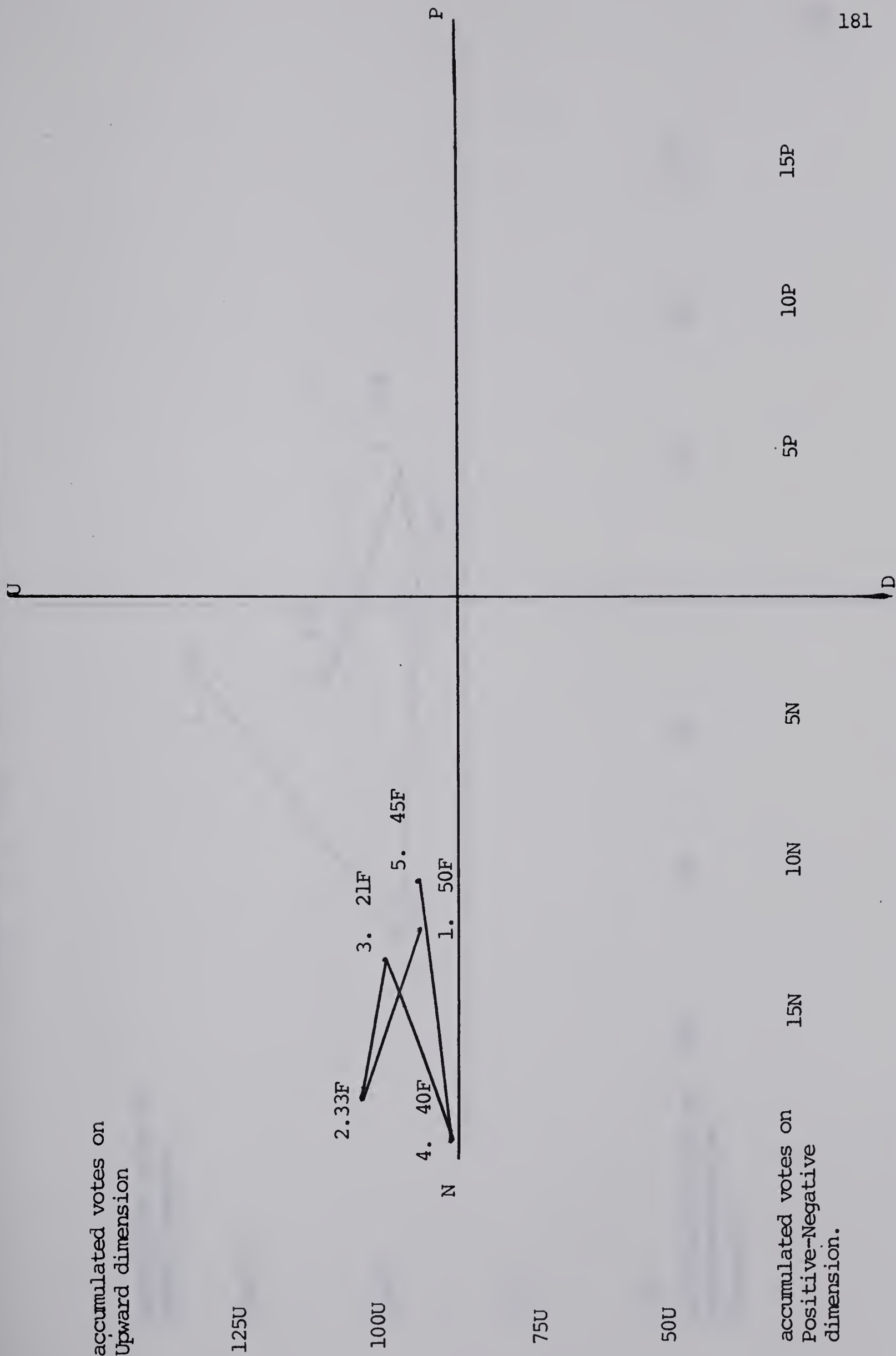


FIGURE 31. DCM₁ GROUP MOVEMENT ACROSS PHASES

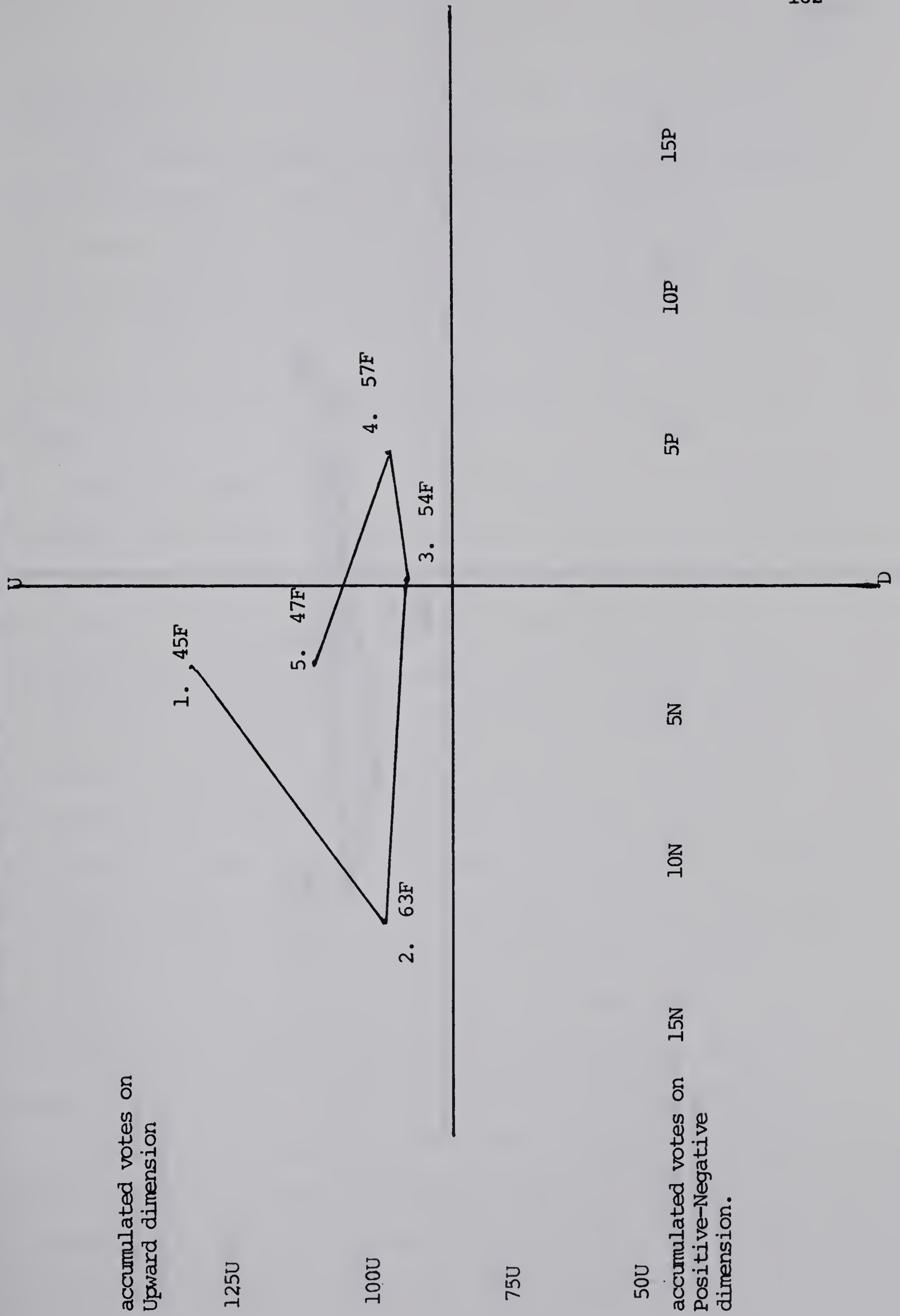
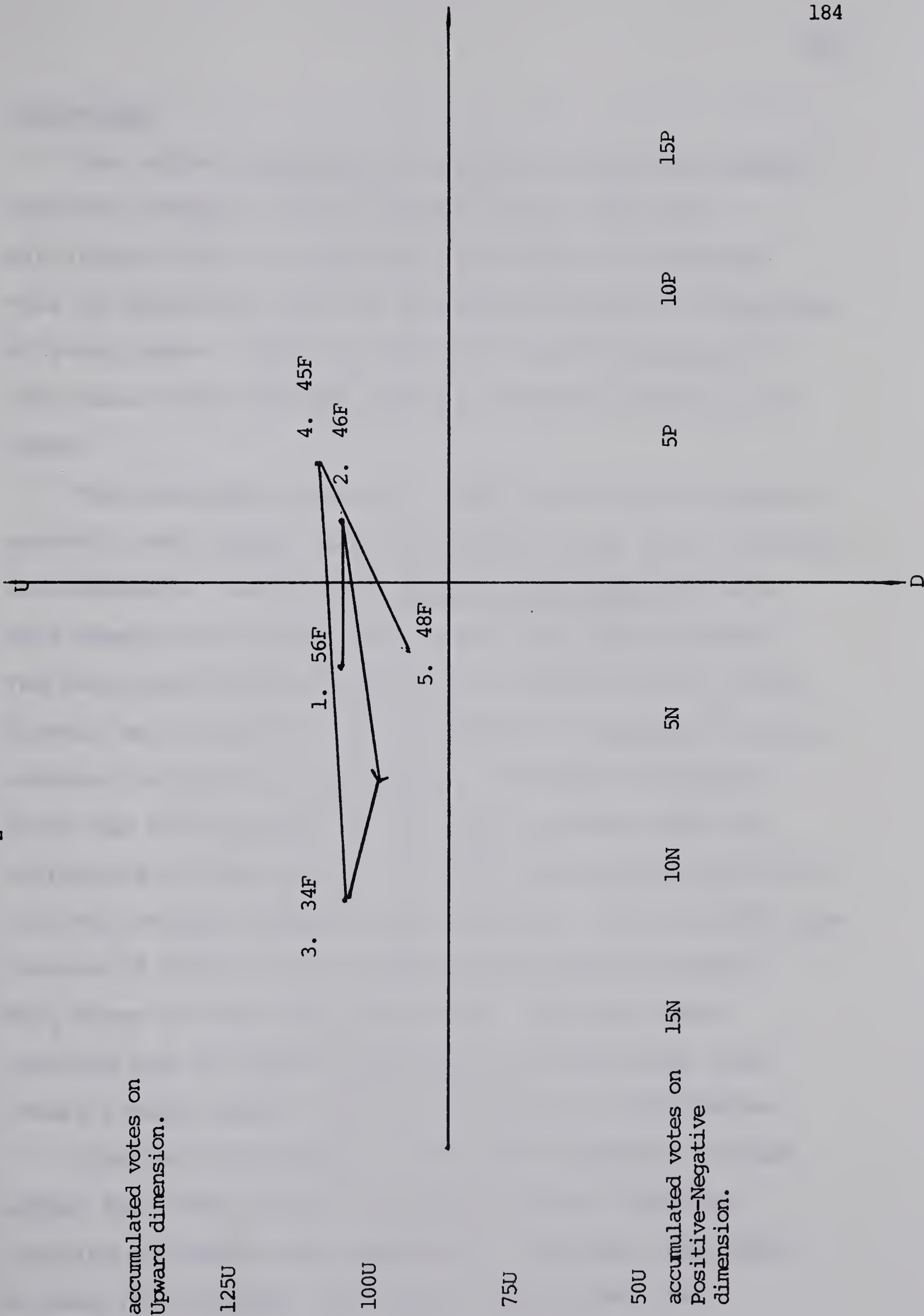


FIGURE 32. DCM₂ GROUP MOVEMENT ACROSS PHASES



DISCUSSION:

The tables demonstrate differences within the across treatment groups. Within the SAT groups there are differences both in directional and degree of movement. This is especially true for the Positive-Negative dimension of group space. The SAT₁ group is located primarily in UPF space, while the SAT₂ group is always located in UNF space.

The sessional movement of both groups can be compared however, even though their predominant group space locations are disparate. Both groups begin in UNF space and move more upward and backward within the next three sessions. The SAT₁ group becomes more positive while the SAT₂ group becomes more negative. From sessions six through nine the movement is downward and backward for both SAT groups. Again the P-N dimension is the only one which does not correspond in both groups. The SAT₁ move negatively while the SAT₂ becomes slightly more positive. From sessions nine through 12 there is less comparability between groups. SAT₁ moves UF while SAT₂ moves DNF. The last three sessions are in complete agreement as both groups tend toward a more upward, positive direction of termination.

From this description of the SAT treatment it would appear that both groups acquired an initial negative reaction to their group experience. Although they began as task (F) oriented, both groups soon became less

task-oriented and remained this way until after the ninth session. The task again became concern for both groups but less so toward the end of the experience. The issues of power and control were assumed very early and maintained until the medial sessions. The SAT₂ group became more submissive and less involved in status disputes than did SAT₁ as the end of the group approached. Both groups ended with increased status concerns and a corresponding rise in reactions, as might be expected at the end of a gruelling experience.

The sessional movements for DCM groups cannot be compared so readily. Both began UNF but went in opposite directions after this point. DCM₁ became DNF while DCM₂ became PB. Both assumed an anti-task stance in the middle sessions but their affective directions were still reversed. DCM₁ became P while DCM₂ adopted N. The later sessions saw positive feelings rise and DCM₂ became more task oriented. The terminal sessions were negative for both groups with a concern for control evident in DCM₁ but absent in DCM₂.

In summary both the DCM groups began with elements of high control, negativism, and concerns with the task. (All groups (whether SAT or DCM) seemed to have begun with predominant negative feelings about each other and the experience they were to go through.) DCM₁ and DCM₂

parted company for the next six sessions. DCM₁ established initial negative reactions which predominated, although this group seemed to warm up slightly toward the ninth session. DCM₂ warmed up much sooner but lost this receptiveness and adopted a very negative tone again as they passed the middle sessions. DCM₁ also kept an orientation toward the task until session nine while DCM₂ became more personal goal oriented and less task oriented at an earlier point than DCM₁ and remained so until toward the end of the group. DCM₁ became less status conscious until termination when they moved up on the status (U) dimension. DCM₂ also never seemed to enter much of a status struggle after the early meetings.

In comparison with the group movement described by Bales and Dunphy (p. 93), it appears that these four treatment groups did not follow the established pattern. They moved very little within this three-dimensional group space after they had established their initial locations. The movement which did occur was on the positive-negative, and a forward-backward dimensions. The SAT₂ group did not move out of UN space at all, although it did move slightly within this space. The other groups were more active than SAT₂ but the overall movement was still very confined.

In explaining this lack of distinct movement across

all dimensions the immediate answer may be found in the nature of the slight movements which did occur. For all the groups the predominant movement was positive-negative. They seemed to be bound up in affective concerns. In SAT the nature of the task, and the trainer's role could help explain this emotionality. For DCM the explanation is more difficult but could well be that the mixed reactions to the trainer in terms of his incongruent behaviour (in that he remained task oriented in the face of task oppositions and did so in a manner often inconsistent with the nature of the material he was teaching) contributed to the positive-negative conflict. This is a viable explanation in many ways. It may also be that these treatments simply were not long enough to demonstrate the expected overall phase movements for these groups.

CHAPTER 6

Abstract

In the previous chapter the hypotheses about group development, as developed by R.F. Bales, were tested. Support for the phase, equilibrium and role differentiation hypotheses were suggested. The hypothesis of the overall phase movement of the groups did not receive the expected support.

In this chapter a more detailed examination is made of individual membership performance in each treatment group, rather than the group structure. The high interactors in each group are chosen as the individuals for study for three particular reasons. These reasons are outlined at the beginning of the chapter.

This chapter includes an examination of the s.p.d. "group space" location for the high interactors determined from live IPA analysis, the subjective Interpersonal Ratings Questionnaire, and the group sociogram. The merit of each method of scoring is considered and all methods are compared, one with the other. A final description of the "group space" location of all high interactors is determined and an extensive delineation of their group performance provided. Their overall group performance is then compared with the "expected" group performance for such "role types" as formulated by R.F. Bales.

Use is made within this chapter of the "group space and sociogram" concept which was outlined in the latter section of chapter three. It is demonstrated that the combination of the sociogram technique, with all the assets of the three dimensional "group space", provides much more information about the group structure than either of these other accepted techniques could do singly.

Finally the high interactors who perform distinctive "roles" in their respective groups are compared in terms of their "learning" and the results are discussed.

CHAPTER 6

PERFORMANCE OF INDIVIDUAL MEMBERS

The Development of Power Structures in the Groups

The concept of a three dimensional group space, and the development of various techniques to measure the dispersion of a group membership within such a space, have been explained in some detail in earlier chapters. In this section of the thesis, the development of the power structures of our four treatment groups will be outlined and the relative "group space" positions of the high interactors in all groups will be examined closely. The approaches of Interaction Process Analysis, Interpersonal Ratings Questionnaire, and Sociogram are used to arrive at the "group space" descriptions of these significant members. These group members were chosen: (i) because their high verbal output created a situation where they acquired more power and status by virtue of talking; (ii) the IPA questionnaire and sociogram all require inputs to arrive at their descriptions of individual performance. These inputs are often biased in favor of the high interactors. (In the case of IPA there is a requirement for the initiation and receiving of acts before a social-psychological direction is established. In the case of the questionnaire

and sociogram the rater could be expected to provide a more meaningful picture of the individual being rated if he or she has more information. The high interactors, by virtue of their higher verbal output, provided this information to the raters.) (iii) These individuals were chosen subjectively by the writer as individuals who had made significant and often crucial contributions to their groups.

In the IPA category system there is a dichotomy between the initiation and reception of acts. To arrive at a social psychological direction for each high interactor this initiating - receiving dichotomy is used. For each of these particular individuals the total number of acts tallied as initiated or received are computed for each session. A binominal probability table (developed by Mosteller and Tukey)* was consulted and particular directions attributed to individuals whose initiated acts exceed received acts by specified amounts in each category. The question usually posed is: "Does person X initiate more acts in which he seems friendly to others (category 1) than he receives from them?" If the answer is "yes" the binominal probability table is consulted. If the difference observed exceeds an amount specified by the table

* Appendix B

then this person X receives a credit (in this case a credit of UP). Each category for each person was considered in this manner. Once completed the procedure is to reverse the questions to "Does person X receive more acts in category 1 than he initiates from others?" Again the categories are completed in order for each individual. The resultant directional tallies are summed, then directional opposites are subtracted and a final social psychological direction is established.

Since the IPA method of arriving at the s.p.d.'s is based upon actually scored interaction rather than subjective responses to a questionnaire, or a sociogram, this IPA was taken as the closed approximation to truth. Each of the other indices of the social psychological directions of members should compare favorably with the IPA taken as the standard.

The methods of arriving at s.p.d.'s for group members using the questionnaire and sociogram, have been described earlier. The validity of the questionnaire has been established through factor analysis.* The sociogram has an obvious face validity. A comparison of these three methods of arriving at group structure could be insightful. Unfortunately the questionnaire was only administered on

* Appendix C

six occasions. Admitting that this may be considered excessive, the lack of administrations might still hamper the comparison. The sociogram is available for every session. There are however, from an analysis of the "nesting phases", important sessions in each group. If the sociogram is a good personal discriminator across sessions it should be possible to show this discrimination in these important periods. These important sessions were chosen from each sociogram analysis to make a comparison with IPA and questionnaire as meaningful as possible.

First an examination of the relationships between IPA and Interpersonal Ratings Questionnaire are provided in Tables 21-4.

Comparison of IPA and Questionnaire S.P.D.'s for all High Interactors in all Four Treatment Groups

The most striking observation about the direction of the s.p.d.'s for these high interactors is the predominance of upward (U) directionality. In only one instance does the overall IPA or Questionnaire directionality not include this upward material. This is the case of E(29) in SAT₁ on the Questionnaire.

* Whenever an 0 appears in the tables of comparisons it refers to either (i) the member was absent for this session; or (ii) there was an insufficient amount of interaction recorded to arrive at an s.p.d.

Table 21

Comparison of social psychological directions for high interactors in SAT₁
using I.P.A. and Questionnaire data

SAT₁

Session 1	2		3		4		5		6		7		8		9		10		11		12		13		14		15		Overall	
	IPA	IPA- Q	IPA	IPA- Q	IPA	IPA- Q	IPA	IPA- Q	IPA	IPA- Q	IPA	IPA- Q	IPA	IPA- Q	IPA	IPA- Q	IPA	IPA- Q	IPA	IPA- Q	IPA	IPA- Q	IPA	IPA- Q	IPA	IPA- Q	IPA	IPA- Q		IPA- Q
Tr.	UF	UPF-UNF	0	UPF-UF	UPF	UF	UPF-UF	UPF	UF	UPF-UF	UPF	UF	UPF	U	U	UNF-UF	NF	UF	UF-UF	UF	UPF	UPF-UPF	UF-UF	UF	UF	UPF-UPF	UF-UPF	UF	UP	UF
M(66)	UF	UNF-UPF	UNF	UPF-UPF	UNF	UPF	UPF-UPF	UPF	UPF	UPF	UPF	UPF	UPF	UPF	UPF	UNF-UPF	UP	UPF	UF-UPF	UPF	UPF	UPF-UPF	UF-UPF	UPF	UPF	UPF-UPF	UPF-UPF	UP	UP	UP
J(3)	UNF	UPF-UP	UPF	UPF-UP	UPF	U	UPF-UP	UPF	U	UPF	UPF-UP	UPF	UPF	UPF	UPF	UPF-UPF	UPF	UP	UNF-UPF	UF	UP	UPF	UNF-UPF	UF	UP	UPF	U-UPF	UPF	UP	UP
B(30)	UF	0-UPF	UNF	UN-UE	U	UP	UNF-UB	UNF	UP	UP	UNF-UB	UNF	UNF	UNF	UNF	UNF-UP	UF	UF	UF-UP	UNF	UF	UNF	UF-UP	UNF	UNF	UB-UP	UF	UP	UP	UP
K(2)	PF	UF-UPF	UN	UNF-UPF	UPF	0	UF-UPF	UNF	0	UNB	UF	UPF	UPF	UPF	UPF	UPF-UPF	UNF	UNF	UPF-P	UNF	UNF	UPF-PF	UPF-P	UNF	UNF	UPF-PF	UPF	UP	UP	UP
L(40)	UPF	UF-UPF	U	UF-UPF	UNF	UNF	UN-UPF	UNF	UNF	0	UPF	UPF	UPF	UPF	UPF	UPF-UPF	UPF	UNF	UPF-UPF	UF	UNF	0-UP	UPF-UPF	UF	UNF	0-UP	UF	UP	UP	UP
E(29)	U	UNF-DP	0	UF-F	UB	UP	0-D	UN	UP	UN	UNF	UNF	UNF	UNF	UNF	U-D	0	UN	UP-DF	UPF	UNF	UNF-UF	UNF-UF	UNF	UNF	UNF-UF	UNF	DF	DF	DF
G(63)	UNF	UPF-PF	UNF	UNF-UPF	UNF	UNF	0-UPF	UNF	UNF	UNF	UNF	UNF	UNF	UNF	UNF	0-UPF	UNB	UNF	UNB-PF	UN	UN	UF-PF	UNB-PF	UN	UN	UF-PF	UN	UP	UP	UP

Comparison of social psychological directions for high interactors in SAT₂
using I.P.A. and Questionnaire data.

SAT₂

Session	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Overall
	IPA	IPA-Q	IPA	IPA-Q	IPA	IPA	IPA-Q	IPA	IPA	IPA-Q	IPA	IPA	IPA-Q	IPA	IPA-Q	IPA-Q
Tr.	UNF	UPF-NF	NF	UPF-UNF	UNF	UF	UPF-UNF	UF	UF	NF-NF	UNF	UNF	NF-UNF	UNF	UNF-UNF	UF UNF
P(1)	UPF	UPF-UP	UNF	UPF-UP	UPF	UPB	UNF-UP	UNF	UNF	UNF-UP	UNF	F	UNF-UPF	UF	UNF-UPF	UF UP
L(92)	UNB	UNF-DP	UF	UF-UPF	UNB	UNF	UNF-UPF	UF	UB	NB-UPF	UNF	UP	UF-UPF	UB	U-UPF	UNB UPF
R(89)	UNF	UPF-UPF	UP	UNF-UPF	UNF	U	UPF-UPF	UN	UPB	UNF-UPF	UF	UNF	UPF-UPF	UNF	UNF-UPF	UF UPF
Do(42)	UF	UNF-P	0	UF-UPF	UP	UPF	UF-UPF	UN	U	UN-UP	UN	UNF	UNF-UP	UNF	UNF-UP	UF UP
J(80)	UF	U-UP	UNF	UF-UP	U	UF	UF-UP	UN	UP	UN-UPF	UPB	UF	UF-UPF	UF	UF-UF	UF UP

Comparison of social psychological directions for high interactors in DCM₁
using I.P.A. and Questionnaire data

DCM₁

Session 1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	Overall
IPA		IPA-Q	IPA	IPA-Q	IPA	IPA	IPA-Q	IPA	IPA	IPA-Q	IPA	IPA	IPA-Q	IPA	IPA-Q	IPA - Q
Tr.	UPF	UPF-UPF	UPF	UNF-UPF	UPF	UPF	UNF-UPF	UPF	UPF	UPF-UPF	UPF	UNF	UF-UPF	UNF	UNF-UPF	UF UPF
M(32)	UNF	U-UP	UPF	UPF-UP	UN	UF	UPF-U	UPF-UNF	UNF	U-U	UF	0	UNF-U	UNB	UPF-U	UF U
M(94)	UPF	UN-UP	UNF	UNF-UP	U	UNF	UF-UPF	UNF	UNF	UNF-UPF	UNF	UF	UF-UPF	UF	UF=UPF	UNF UPF
C(44)	UPF	UN-UP	UN	UB-UPF	UNF	UNF	UPF-UP	UNF	UNB	UF-UP	F	UF	UPF-UPF	UNF	UPF-UP	UNF UP
F(20)	UF	UNF-UP	UNF	DF-UP	UF	UNF	UP-UP	UP	NF	UF-UP	UF	UNB	UN-UPB	UF	UNF-UP	UNF UPB
B(81)	UNF	UPF-DPF	UF	UPF-UP	UF	UN	UPF-UP	U	UNF	UNF-UPF	0	UN	UN-UP	UNB	UPF-UPF	UF UPF
T(25)	UNB	UF-UPF	UNF	UP-UP	UNF	UNF	UPB-UPF	UPF	UF	UNB-UP	UPF	NF	UPF-UP	UP	UF-UPF	UF UPF

Table 24

Comparison of social psychological directions for high interactors in DCM₂
using I.P.A. and Questionnaire data

DCM₂

Tr.	Session														Overall	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	IPA Q
	IPA	IPA-Q	IPA	IPA-Q	IPA	IPA	IPA-Q	IPA	IPA	IPA-Q	IPA	IPA	IPA-Q	IPA	IPA-Q	IPA Q
G(64)	UNF	UPF-UPF	UF	UPF-UPF	UPF	UPF	UPF-UPF	UP	UPF	UNF-UPF	UNF	UPF	UNF-UPF	UF	UF-UPF	UPF UPF
H(82)	UPB	UNF-UPF	DF	U-UPF	U	UF	UPF-UPF	UNF	UPF	UNF-UPF	0	UPF	UN-UPF	UF	UPA-UPF	UF UPF
Do(73)	UNF	UPF-UPF	UNF	UNF-UPF	UNF	UPF	UNF-UPF	U	UNB	UNF-UPF	UN	UNB	UPF-UPF	UN	UN-UPF	UN UPF
B(23)	UN	UN-UPF	UPB	UNF-UNB	UB	UPF	UPF-U	UNF	UPF	UPF-UF	UF	U	UPF-UN	UPF	UPF-UF	UN UP
Da(87)	UNF	UP-U	UP	UF-UP	UNB	UF	UN-DPF	UPF	0	UF-UPF	UPF	UN	UP-UPF	UNF	UN-UPF	UF UPF
K(90)	UPF	UPF-UP	UF	U-UPF	UF	UN	UNB-UPF	UP	UNF	UPF-UPF	UPF	UPB	UNF-UF	UNF	UNF-UPF	UF UPF

A number of reasons might be provided to explain this result. In the first instance these group members are the highly interactive participants and are more likely to be found in the upward axis or controlling aspect of the three dimensional space. A second reason is that in the case of the IPA conclusions, the key for determining the directions, on the basis of the initiated-received dichotomy, has very few of its responses keyed downward. In fact in the case where the number acts received exceeds the number on initiated there is no possibility for downward scoring. (See Appendix B). This seems to be a severe limitation of this method of determining the s.p.d.'s.

In the case of the questionnaire it has already been mentioned that there seems to be an UPF bias to the instrument. In addition the factor analysis and subsequent item analysis of the questionnaire has turned up a number of items on which there were expected to be D loadings but which turned out to be loaded U. Such items are 18, 19 and 21 respectively (see Appendix C).

With respect to the P-N dimension of group space the IPA analysis seems to be able to turn up more negative material than does the Questionnaire. Frequently, across all groups, there are discrepancies between the IPA and questionnaire results on this dimension.

Immediate and most obvious examples seem to be:

In SAT₁: persons G(63), B(30)

In SAT₂: persons P(1), L(92), R(89), Do(42)

In DCM₁: persons Tr, M(94), F(20)

In DCM₂: persons G(64), H(82), B(23)

As a means of explanation the individuals involved in the examples above, although very active, were often ambivalent about their true feelings about their group experiences. The raters on the questionnaire could be demonstrating how difficult it may have been to describe ambivalent individuals accurately with a paper and pencil format. The IPA would be a much better discriminator in this case since the raters who were determining the IPA categories were trained to be especially concerned with affect and emotion.

Additionally, when an examination is again made of both the factor analysis and item analyses of the questionnaire, items 12 and 23 of questionnaire are expected to have a negative loading but are completely reversed. The result is a bias toward P rather than N.

The absence of negative items on the questionnaire would make it much more difficult to provide individual examples of negative personalities in the group. Although there are some individuals who are scored negatively on the questionnaire, and with some consistency as well, the absence of more negative feeling casts some doubt upon those who are

truly positive in directionality.

On the F-B dimension the IPA analysis again shows slightly better discrimination across groups. There is however a predominance of F directionality in both IPA and questionnaire. Those individuals who appear with B directionality across groups were indeed the most deviant and non-task oriented members. In this case these members would be B(30) in SAT₁; L(92) in SAT₂; C(44) and T(25) in DCM₁; and D(73) in DCM₂.

In each instance these members were often engaged in non-cooperative, and anti-task behaviour. Other members who might have demonstrated similar sorts of behaviour in a less determined fashion do not seem to have been uncovered as readily by IPA or questionnaire.

By way of explanation an examination of the key for the initiated-received dichotomy on which IPA, s.p.d.'s are calculated demonstrates a tendency towards F rather than B as an expected direction.

There are a total of 10 possible F scores across all 24 tallies and only 7 possible B tallies. In this way the discriminating ability of the IPA is reduced.

On the questionnaire an examination of the factor analysis and item analysis shows that even though items 12, 13, 20, 21 are keyed F they do not seem to be loaded very heavily in this direction. Although they are not

loaded inversely they are not items which discriminate successfully on the F-B dimension. This helps to explain the slightly divergent results between the IPA and questionnaire.

In summary, the comparison of results on the I.P.A. analysis and Interpersonal Ratings Questionnaire show discrepancies. Particularly with respect to the amount and direction of emotionality picked up by both these approaches; and the lack of anti-task discrimination on the questionnaire.

As a means of offering support for the live IPA analysis the members of the groups who were found to have more negative feelings were indeed the group members who demonstrated this negativism more openly in their groups. The author was able to have his clinical impressions about these individuals confirmed through the conclusions reached by IPA. In general they were the individuals who used negative confrontation and were pessimistic about their fellow members. They frequently took an anti-trainer position and in the self analytic group especially they were singled out as scapegoats by other members. By virtue of their negative attitudes they seemed both to volunteer and be chosen by other group members as martyrs for, or in place of, the trainer. Perhaps the uncooperative nature of the trainer role in the self-analytic group made it easier for the group members to identify similarities

between the negative personalities in the group and the trainers present role.

The male members seemed to have a monopoly in this negative direction. Of the eight individuals who were identified as negative through the IPA analysis there were only two females. This is true even though there was a predominance of females in all groups!

It may be that the adoption of a negative personage in the group is more acceptable for the males. It would be a break in role for the females to take on this negative directionality in a very overt way. In the instance of the two females who do receive negative directionality, they were both very verbally aggressive and quite out of character with the majority of their fellow group members. Their negative ratings however, through a clinical rather than statistical analysis, would seem to have been determined through the use of verbal monopoly, filibuster and sarcasm rather than the blatant confrontation, or the overt negative assault more common to the negative males. A few examples of the distinction between negative males and negative females are provided below. Use was made of group dialogue to provide examples of the particular group style.

L(92) - Female in group SAT₂ - Highly verbal interactant whose most frequent approach in the group was to introduce irrelevant material, often out of context, and talk

incessantly and in long monologues about newly introduced information.

Examples:

Session 1: "I worked in a drop-in center last summer."

Session 4: "Are you satisfied with the educational system as it is now?"

later: "I like doing the kind of thing I did last summer, I was working with kids"

later: "How do you define differences between friends and acquaintances? I have many acquaintances."

Session 7: "Did you get your tranquilizers from student health? They sure give them out a lot. I went there last year and they gave me this bottle; take two every day before you teach."

Session 8: "How was your trip?"

later: "That brings to mind a little thing I had in one of my courses one year"

Session 10: "I thought of this guy I worked with last summer"

Additionally L(92) was nonchalant, even disinterested in others in the group. Any references to others would be given in a backhand, or "off the cuff" manner which seemed to indicate a lack of concern.

Examples:

Session 4: "In this other group I was in, we were a lot like we are now in our first session. We didn't know each other that well and we played these little games."

later: "Yes, that's what people are interested in (personal opinions) if you keep on general topics."

later: "I don't like common topics."

Session 10: "I think the majority of them (trainer remarks) are worse than useless, they're not helping things, as a matter of fact they keep us from talking."

later: "Just certain people don't talk to each other, you can really tell they don't like each other."

later: "I don't think it's up to me, it's their problem."

later: "Well if they want to dislike each other, they're quite welcome to go ahead."

G(63) - Male in SAT₁ - Highly verbal interactant who used intellectualization and a reliance upon "books I have read" to interpret the group process for other members. Adopted a very anti-trainer position very early in the group

and maintained it almost throughout. Tended to use confrontation on other group members and didn't "pull any punches" when he considered it necessary to be negative.

Examples:

Session 1: "He (trainer) hasn't become part of the group."

later: "Maybe that's one of the quickest ways to get the group together, to have someone to be hostile against."

later: "We resent the trainer's egoism because he thinks that we do everything in relation to him."

Session 3: "They're egocentrics (silent members); they're concerned about their own needs before the group; that's the way I feel."

Session 4: "The first good plan is that we're supposed to expel him (trainer)."

Session 10: "I don't care what those other people think I think everybody gossips"

Session 13: "...not resentful, but I disliked her (fellow group member) entirely."

later: to E(29) "You're a very irresponsible member of this group."

E(29) - Male in SAT₁ - although not highly verbal this member became an important figure in the early and later sessions. Initially E(29) worked somewhat as a team with G(63) in trying to eliminate the trainer. Frequently this took the guise of reacting against the observers or the course instructors by professing a dislike of the arbitrarily assigned task. Later this member was the undisputed leader of a negative faction in the group. This negative faction desired to remove the present positive leader in the group (M66) and replace him with someone who is more "open and honest" (i.e. negative). The overriding premise of E(29) was that people cannot be trusted.

Examples:

Session 1: "Phony film for sure." ... (comment on pretest)

later: Suppose we had something specific to work upon ... we wouldn't even involve the trainer."

Session 2: "Yeah, but then if you do trust a person he may take advantage of you".

Session 4: "It would be a delight to leave him (trainer) off for one session."

Session 13: "We haven't progressed at all"

later: "I think the other members of the group haven't interacted at any time. I think they have said

something to say something, but they haven't been themselves."

later: "In fact I don't know any of you as a person ..."

later: "What I'm criticizing here is that I think he (M66) is using other members of the group."

Session 15: "I just don't think about her (missing member) if she's there, she's there, if she's not she's not. It doesn't bother me."

The performance of those individuals who were determined as Backward rather than Forward, when the dialogue is examined, shows considerable anti-task behaviour. This backward behaviour is supportive of the discriminating power of the IPA analysis. Although there was only one member of all the high interactors who received a B determination overall there were members who received B ratings in various sessions. We could examine the performances of B(30) in session 15 of SAT₁; K(2) in session 8 of SAT₁; L(92) in session 10 of SAT₂.

Example:

B(30) Female, SAT₁ Session 15

"I think it's really sad, I think we'll go to the funeral now, I think it's the group. The group is dead! It is no more. It's like the last days of

school.

"...it's hard for me to think in a group, like if I'm not part of the group I can't see how, you know. Not that it can't progress without me because I'm so important ..."

"Yeah, but we came to a similar conclusion anyway, so it (the group) wasn't a total loss was it?"

"I don't like taking responsibility for hampering the group for one session ..."

K(2) Male, SAT₁ Session 8

"Even in spite of all the readings ... that we were given, whether we did them or not; I don't know, it kind of bothers me, I mean, see, I kind of go to write this diary and I'm writing the same thing over and over again. Whether that's true or not, I don't know, I'm beginning to wonder, you know, if it's me or if it's us, or ..." "You know, one thing about this down feeling, as you call it, or it seems to me, that it occurs each time the Trainer interjects something. "He just closes things right off.

"I've been thinking myself that I didn't do a heck of a lot to contribute to the groups progress at all today. I feel guilty about this. In other words I didn't do my part.

L(92) Female SAT₂ Session 10

"Oh, we're still playing around but I still don't see the leader. The way I see it the leader is someone in the group, leading the rest of us, you know ...

"Well, when he first came in (trainer), the first thing I remember about him is when R(89) asked him if he was going to help us, and he ignored her, and then I kind of gathered that he was just not going to do anything, so I just you know, OK, so you don't want to play in the game you don't have to, we'll play without you."

"Oh I've been exasperated when he'd say things, sometimes I felt like telling him to shut up, and just say nothing."

"I felt like getting up and going."

Combination of Group Space and Sociogram Analysis for High Interactors in all Four Treatment Groups

The nature of the sociogram used in this study is such that the four questions which compose the instrument can be considered to measure the 3 group space dimensions of U-D, P-N, F-B. In the example provided earlier (p.114) the questions of the sociogram were combined in such a way that Question 1 gave an indication of the Forward (F) or Backward (B) Task aspects of the groups, Question 2 was

concerned with the power (U) dimension, Question 3 measured the positive direction and Question 4 the negative aspects.

To provide the comparison of this sociogram to other analytic measures of the group space, namely the IPA and Interpersonal Ratings Questionnaire, certain modifications were made. (i) Sessions which were considered to be significant "turning points" in the groups concerned were selected from the "nested" phase analysis. The sociogram analysis for these particular sessions was completed.

(ii) The next step was to rearrange the order of presentation of the sociogram results so as to make it visually comparable to the other analytic techniques used to determining the relative positions of the members in the group space.

Normally the order of sociogram questions one to four would be read to measure FBUPN. This was rearranged so that the U dimension score appeared first, followed by P, N, F, B. This will be the order of their appearance on Tables 25-28.

Examination of these tables reveals immediately that there are a large number of 0 scores on some of the dimensions. This is the case because there is only one possible choice on every sociogram question, except for Question 1 which measures F. The result is a number of individuals in each session not receiving votes on particular directions. Since the question which measures F

Table 25

Combination of group space and sociogram analysis for high
interactors in SAT₁

SAT₁

	Session 2	4	7	10	13	14	15
	UPNFB	UPNFB	UPNFB	UPNFB	UPNFB	UPNFB	UPNFB
Trainer	00302	00300	00000	10000	00000	21222	00111
K(2)	21032	10021	11022	01210	00120	00110	02011
J(3)	02120	00000	01030	12120	10031	01030	00120
E(29)	00100	00241	00000	00101	50554	101242	52432
B(30)	00121	13234	02505	54232	01002	01010	00010
L(40)	00042	13030	42141	12346	05030	02130	00000
G(63)	01100	81336	00001	10010	11113	01010	02012
M(66)	85172	01120	52030	11120	54221	01130	63260

Table 26

Combination of group space and sociogram analysis for high
interactors in SAT₂

SAT₂

	Session 2	4	7	8	10	13	15
	UPNFB	UPNFB	UPNFB	UPNFB	UPNFB	UPNFB	UPNFB
Trainer	00000	00000	00100	00000	00101	00100	00001
P(1)	21030	21122	41223	10436	70133	20225	32023
D(42)	00110	37090	01010	12041	02030	01030	11010
N(48)	11528	00600	01200	01410	00400	00100	00401
J(80)	20021	00113	01122	00000	00010	03022	63051
R(89)	52041	31122	01041	02011	05030	42161	12062
L(92)	00000	31020	11021	50040	10132	42020	01121

Table 27

Combination of group space and sociogram analysis for high
interactors in DCM₁

DCM ₁	Session 2	4	8	9	10	13	15
	UPNFB	UPNFB	UPNFB	UPNFB	UPNFB	UPNFB	UPNFB
Trainer	10010	32031	11010	20000	40111	20000	30000
F(20)	02020	00000	11020	11030	02021	01110	00030
T(25)	00100	00003	00020	12233	00121	23030	32161
M(32)	01203	00111	81316	22325	01212	40236	22013
C(44)	44060	14070	03160	44060	12020	35060	03020
B(81)	00001	41030	04111	00000	23030	10003	11020
M(94)	21251	23133	00020	00020	12051	02050	02000

Table 28

Combination of group space and sociogram analysis for high
interactors in DCM₂

DCM ₂	Session 2	4	8	10	13	14	15
	UPNFB	UPNFB	UPNFB	UPNFB	UPNFB	UPNFB	UPNFB
Trainer	40020	60231	71061	62050	10130	11020	30040
B(23)	00030	12030	01020	21042	31030	00021	11012
G(64)	31131	22041	23100	02020	00101	02011	01011
D(73)	03122	01428	00325	11222	72336	01512	21314
H(82)	00121	11000	23111	00014	00021	41151	00031
Da(87)	60214	12000	20012	00111	00000	31032	42122
K(90)	01230	01120	00111	20321	02041	20122	11121

on the sociogram provided an opportunity for the raters to chose two group members, there are less 0's on the F dimension than on any other. In order to get around this particular "bind," without losing valuable data, a compromise was decided upon for this sociogram question. When a group member was a first choice on the F question he received a full credit of 1F. When the same member was a second choice he received 1/2F. In any case where a final value was totalled which contained any fraction such as 4.5F, invariably the figure was rounded upward.

There are a large number of 0 scores. These 0 scores automatically mean that at various times certain dimensions will not appear for some members. This absense of direction is contrary to expectations and is an obvious limitation of a dearth of questions on the sociogram. Any additional questions, however might well have limited the face validity of the sociogram itself. The reliability of any single item is still in question in any case.

Another difficulty with the sociogram, when trying to provide comparisons with other analytic measures of group space, is the absence of any downward (D) directional question. It had been mentioned earlier that the absence of U is taken implicitly as an indication of a lack of member influence. This has some merit. It is hampered in that when only one individual can be chosen by each rater the absence of U directionality does not automatically

make a member submissive. At least it does not make all the members equally submissive, just as it does not make them equally influential. The interpretations of the U and F dimensions should be considered in the light of these comments.

A closer scrutiny of Tables 25-8 indicates that frequently in each particular session there are one or two members whose total interaction of votes far exceeds the totals of any other members. Take the case of M(66) in session two of SAT₁, or G(63) in session four of SAT₁. Very infrequently however will one individual maintain a high total number of votes over a lengthy period of time. There is rarely, if ever, a case where one individual will succeed in acquiring a large number of votes for the full life of the group. This may reflect the lack of reliability of the sociogram.

Perhaps the individuals who are the most successful in this regard are P(1) in SAT₂, C(44) in DCM₁, and D(73) in DCM₂.

In the majority of cases there can be observed a fluctuation of status, both across sessions and across dimensions. This is very much in line with the expectations of role diffusion and consequent variations in status as a function of the movement of these groups through problem phases.

Within SAT₁ the members who are shown as experiencing

the major alterations in status over time are E(29), B(30), M(66). For E(29) this is indicated by an absence of votes in the earlier meetings and a building up of allegiances toward the very late stages of the group. Within the last three meetings it can be seen that E(29) became a very powerful individual. In session 14 he found himself as almost completely alone on the U dimension and save for the trainer, was uncontested on this dimension of group control. In the case of B(30) there is a slow building of influence until session ten where it then seems to have peaked. Very few votes on any dimensions are gained by B(30) after session ten. G(63) was highly influential for only one session! In session four he amassed the largest total vote. After this point he seemed to become somewhat inconspicuous. M(66) experiences a wavelike fluctuation in status. His power in the group seems to bounce from high to low in successively important periods. He is a high status person in sessions 2, 7, 13 and 15, and low status person in sessions 4, 10 and 14. The fellow members of M(66) seem to see the relationship with M(66) as valuable but tenuous. It is as though he were an important person to have around ... sometimes!

For SAT₂ the major alterations, in overall status are experienced by D(42), J(80), R(89) and L(92). With D(42), there is a peak of major group influence in session four and evidence of only minor influence after this point.

J(80) is a nebulous status in the group. His status remains nebulous until termination of session 15. Here his status takes an important upward surge. For L(92) there is an obvious deviation in her influence on the U dimension. This is also true of R(89) in this group. For both these members their status is that of influential persons in most every session. The variance is in the direction of the influence and not in the fact of its existence. For L(92) wavelike periods of influence occur in a similar fashion to that of M(66) in the previous group.

Within the DCM₁ group the influential members who experience alterations in status are T(25), M(32), M(94). In the case of T(25) the influence is built up gradually across, reaching a crest in the terminal session. Additionally there is a swing from B to F on the task dimension and from D to U on the control dimension. A gradual positive direction is also indicated. The overall direction of this movement is UPF. For M(32) there are two periods of major influence which appear first in sessions 8 and 9 and then in sessions 13 through 15. The direction of the influence is usually UNB, although more positive at termination. This member seems to be playing the part of a deviant, since the primary indicators of this UNB directionality are a self-aggrandizement and exploitiveness. M(94) is more influential in the group in the earlier sessions than at any other time. Only

during these early periods does he receive any U, or controlling directionality at all. His major influence seems to be on the task directed, positive side. His position is somewhat of a buffer to M(32).

DCM₂ gives evidence of status alterations within the careers of G(64), H(82), Da(87). For G(64) the major period of high status occurred very early and seemed to wane over time. His early U directionality also seemed to dissipate. The status depreciation of certain early vote getters seems a common trend across all groups. Some individuals have high vote getters periods which peak very early and then fade. Their sources of influence are frequently UPF with the U aspect dissipating and remnants of the PF directionality remaining. An example is G(64). Other examples of this pattern are M(94) in DCM₁; K(2) in SAT₁, and D(42) in SAT₂.

For H(92) the most important session, in terms of his status occurred in session 14. There was a lesser period of influence in session eight but the major crest in status occurred in the later life of the group. Within the status of H(92) there was a peak especially on the UF dimensions. The forward material remained until termination, but the controlling (U) aspect of this status peak was lost before the end of the group.

Da(87) experienced two periods of major influence.

The first appears in session 2, the second in sessions 14, and 15. In both cases the controlling aspect is present (U) but the affective and task dimensions shift over time. After session two, where Da(87) is UNB, the NB component becomes much less prominent and only the heavy upward material remains. It would seem that Da(87) was seen as a deviant, non-cooperative individual in the earlier sessions while at group termination she was seen as more co-operative with others.

Results of the sociogram analysis warrant the following findings.

(i) no individual in the treatment groups is successfully able to gather a large number of votes for a continued period of time.

(ii) in the majority of cases the history of these high interactors reflects a fluctuation of status, both across sessions, and across dimensions.

(iii) some individuals experience a wavelike fluctuation in status, such that there are alternating peak and low periods of status as the group sessions continue.

(iv) the influence of some individuals rises steadily, reaching a peak near group termination.

(v) some individuals have their status position peak in the earlier sessions. These individuals seem to become very inconspicuous members from this point.

TABLE 29

I.D. #'S OF SELECTED INDIVIDUALS WHO ILLUSTRATE FOUR
BASIC SOCIOGRAM VOTING PATTERNS

	LARGE Number of votes over all sessions	WAVELIKE fluctuations in status	GRADUAL building of allegiances	EARLY status peaks
SAT ₁	M(66)	M(66)	E(29) B(30)	K(2) G(63)
SAT ₂	P(1)	L(92) R(89)	J(80)	D(42)
DCM ₁	C(44)	M(32)	T(25)	M(94)
DCM ₂	D(73)	H(82) Da(87)		G(64)

In terms of the "role differentiation" hypothesis which receives support in an earlier chapter, it is understandable that no individual, whether a high interactor or not, would be able to successfully accumulate and hold power for long periods of time. It may be to the credit of the hard-core defensive structures of those group members who did amass long-term power that they were so successful. The interaction rates of M(66); P(1); C(44); D(73) were among the highest in their respective groups. For M(66) and P(1) interaction rates were the highest. The continual output of verbal material resulted in the accumulation of votes on the sociogram.

The authors' clinical impression of these high power individuals was that in the majority of cases, with M(66)

being an exception these group members were the more cynical, negative members. An examination of their IPA results indicates that all of these high power group members, save M(66) scored Negative in direction of interaction. Although they might not have been "perceived" as negative by their fellow participants their actual live interactions, as recorded by IPA, reports these members as negative. The high vote getters were prone to look with disfavor upon the group task, especially in the DCM group. In the instances of C(44) and D(73) these were the two individuals, one in each DCM group, who adopted the most pessimistic and cynical attitude about learning. They both expressed discouragement with the exercise and with the trainer and often expressed this feeling openly. It appears then that individuals who verbalize a great deal and who do so with negative feelings about the trainer, retain a large amount of power within the group, especially when they are in opposition to the majority of the other group members.

For those high interactors who experience a wavelike fluctuation in status an examination of the relationship between the "nested phase" hypothesis and "generalized status" (p. 167) indicated these were the individuals who played significant parts in the group life only during particular periods. The status of M(66), for example, is high during the task ambivalence period around session two,

then declines only to rise when the task is considered and evaluated in session seven. His status again declines until session thirteen when he is involved in the emotional rift occurring between the positive and negative factions in the group. Similar relationships are shown between status fluctuations as measured by "generalized status index" from IPA, and that established in the sociogram voting records for L(92); M(32) and Da(87). In each of these instances these members perform vital group functions for short periods of time and then recede from the limelight.

The high interactors who experiences a gradual buildup of status, from this authors' clinical impression, is frequently the individuals who is opportunistic. In each instance these particular group members rose in status, and in the accumulation of sociogram votes, after a stage of peak emotion in each of their groups. Usually this occurred after the positive and negative factions in each group had ventilated their feelings about the group experience, the trainer, or their fellow members. At this time group stability and control seemed necessary. By confronting the most vulnerable present group leader it was relatively easy for these opportunistic individuals to accumulate power. A case in point is E(29) who was not an active member through the middle sessions but rapidly gained prominence by confronting high status

individual in his group M(66). This confrontation occurred a short time after a series of clashes between M(66) and other group members. Such opportunism is also true of the performance J(80) in SAT₂, and of T(25) in DCM₂. When the IPA analysis for these three members is consulted it appears that these three individuals are control oriented (U) (p. 194-7). The location of these members as Upward, through IPA analysis helps to provide some objective evidence to support the clinical impression of control concern evident in these member performances. An examination of the transcripts for the latter sessions of SAT₁ demonstrates how E(29) accumulated his power so quickly; by dethroning the vulnerable group spokesman.

- E(29): I'm not trying to criticize you, I mean, he does you know, talk and everything, that's fine; but what I'm criticizing here then, is that I think he's using other members of the group, to come out and express themselves, and I don't think he's really doing it; fine, you're talking, I don't disagree with that, you're doing a lot of talking ... involvement, but, as you have mentioned, a lot of involvement but no interaction ...
- M(66): You know, I sort of get the impression that you're trying to load all your troubles on to me.
- E(29): Not really, no. But you see, you've been the only person who has been doing all the talking, the majority of the talking, and I think people have just let you do it; because ... you've read a lot of things and come up with different topics; but as far as I'm concerned ...

- M(66): Yeah, but, you know, I mean, I try to get the group moving off the ground quite a lot of times, otherwise it would have just been flat ...with no conversation at all; it's only through conversation that this group is going to get off the ground. I mean, it's not one of those sort of groups where you can go around, you know, almost as a sensitivity group.
- E(29): Well, I know that the people you ask are the people who always interact; or the people who talk, that would be either L(40), B(30) or J(3) or K(2) ...This is where I noticed ... (Laughter) yeah, Pat, he'd ask Pat sometimes.
- M(66): Why put the onus on me, why not say something your damned self, instead of putting the onus on me all the time?
- E(29): No ...you're the one who seems to be leading the group, now, you've asked me how I felt, this is the way I feel, I'm giving you how I feel.

The individuals whose careers experienced an early peak and then declined have certain positive approaches in common. This authors impression of these members was that they were the more enthusiastic, pleasant and friendly members of their respective groups. Not acting in a submissive or non-interactive manner, they were individuals who were highly extroverted, agreeable and generally accepting of others. It may well be that they served the function in the group, during the early sessions of promoting the co-operative ethic. These members could also have been serving as a buffer between negative or cynical high interactors.

In the DCM groups the members who experienced an early

peak in status were M(94) and G(64). They were task oriented and initially eager to engage the trainer in interaction focused upon the task. They assumed responsibility for communicating the trainers position to other members and in this way they served as interpreters for the trainer. Having performed this function they seemed to have been replaced by the more skeptical members during later group problem sequences of evaluation, and control. An examination of the tables on page 167-170 shows the status fluctuations across phases, indicates that M(94) and G(64) both rated high status during the communication and evaluation phases, but dropped off considerably in the latter stages. Additional support for the roles these members played comes from the IPA s.p.d's which located both M(94) and G(64) as UPF and PF in directionality. This is more objective evidence which is in basic agreement with the initial clinical impressions arrived at by the author.

The relationship of K(2) and D(42) in the SAT treatment was somewhat similar to that of M(94) and G(64). Because the SAT phase movement did not follow the expected pattern however, the function performed by these two highly agreeable positive individuals changed somewhat from that of the two positive DCM group members. K(2) and D(42) seemed to question their present role in the group. Both

also were intent upon improving their performance. It was almost a neurotic need on the part of these two members. They seemed both to sense a change in their status, after the first few sessions, possibly as a result of their group being continually involved in the social-emotional area. Both K(2) and D(42) were agreeable, friendly individuals but the nature of their group treatment, and the uncompromising nature of the trainers role seemed to work against them. The other members of their group were not in favour of remaining in the positive domain for very long. After the initial cooperative plea for support and mutual aid, both K(2) and D(42) lost their initial high status, and remained somewhat inconspicuous for the remaining group time. The IPA analysis locates these two members as PF, and UPF. Also their status loss was less conspicuous than it was on sociogram in both DCM, and SAT groups, when the tables comparing status and phase movement are examined (p. 167). Indeed K(2) makes an important contribution in the later sessions, when his SAT₁ group seems to come to life and is more optimistic. The IPA results, in this case, are not in agreement with the sociogram data.

An analysis of the dialogue from the early sessions might aid in an appreciation of the positive, friendly, agreeable, and yet apologetic nature of these two members.

K(2) SAT₁ Session 1 - (This person was particularly meek and apologetic, even spineless in his positivism)

"Talk will come when we get to know one another"

"Does anyone have any opinion about the way this course is going so far? Taking these tests, viewing these videotapes. What do you think about this? For myself, I feel it's been quite helpful, seeing that I can apply this to my own case. Any comments?"

Session 2: "I'm wondering if we really need to think so much of giving, say, materialistic things other than perhaps of giving yourself to somebody else, instead of getting up on Monday morning with a sneer you know, kind of get up and try smiling or something like this."

Session 4: "As we partake in these groups each week, we, you know, tend to trust one another more and more all the time ..."

D(42) SAT₂ (This person was less apologetic and more aggressive in the group while remaining positive, he certainly appears to be less fearful of the trainer than does K(2)).

Session 1: "If he (trainer) wants us to discuss behaviour, let's discuss some type of behaviour. Our own behaviour in this group".

later: "Good idea"

later: "Does anybody know "We shall overcome.""

later: "Does anybody know the trainer's name?"

Session 4: "I can't understand this, why can't we just sit down, like if we were down at the coffee shop or something and there are twelve of us having a cup of coffee and a pizza, why can't we talk like that"

"Maybe we should bring up a cup of coffee"

"We don't mind if you get mad."

"Well at least you're thinking, you're accomplishing something you know."

The sociogram voting results, which depicted the high interactors as seen by their fellow group members, provided a classification of the high interactors in each of the groups into four different membership roles. Each role had a common element; whether negativism, an especially high verbal output, control concerns, a positivism, or a task orientation.

An examination of the actual group performance of the interactors located on these roles, demonstrated that there

is a remarkable similarity between the subjective voting records of the group membership and the objective evidence available through the IPA s.p.d.'s, status variation, and phase movement of each group.

The determination of s.p.d.'s from sociogram analysis for high interactors in all four treatment groups

To arrive at s.p.d.'s from the sociogram results, the total responses to any item on the sociogram questions were considered as indicative of the magnitude of a particular direction in group space. Subtracting the opposing directional indicators enabled the determination of final s.p.d. location for the high interactors in each group.

The results of this procedure are described on Tables 30-33.

In the DCM groups it was quite simple to provide s.p.d.'s for the trainer. In these groups the trainer occupied a high status position, in the view of the group members, and on most occasions, received numerous votes on all three dimensions. The SAT treatment was reversed. The trainer's s.p.d. is hard to determine. In almost every instance the group members have not chosen the trainer as an influential person on these dimensions. This is partially explained by the differences in the nature of the two experiences since the adopted roles of the two trainers

Location of s.p.d's from sociogram analysis

Table 30

SAT ₁								
Session	2	4	7	10	13	14	15	overall
Trainer	NB	N	O	U	O	UN	N	N
K(2)	UPF	UF	UP	NF	NF	NF	P	F
J(3)	PF	O	PF	UPF	UF	PF	NF	PF
E(29)	N	NF	O	NB	UNF	UNF	UNF	UNF
B(30)	NF	UPB	NB	UPF	PB	PF	F	U
L(40)	F	UPF	UPF	UNB	PF	PF	O	UPF
G(63)	O	UNB	B	UF	UB	PF	PB	B
M(66)	UPF	F	UPF	UF	UPF	F	UPF	UPF

Table 31

SAT ₂								
Session	2	4	7	8	10	13	15	overall
Trainer	O	O	N	O	NB	N	B	NB
P(1)	UPF	U	UNB	UNB	UN	UNB	UPB	UNB
D(42)	NF	UPF	PF	UPF	PF	PF	UPF	PF
N(48)	UNB	N	N	NF	N	N	NB	NB
J(80)	UF	NB	O	O	F	P	UPF	U
R(89)	UPF	U	UF	P	PF	UPF	UPF	UPF
L(92)	O	UPF	UPF	UF	UNF	UPF	F	UF

Location of s.p.d's from sociogram analysis

Table 32

DCM₁

Session	2	4	8	9	10	13	15	overall
Trainer	UF	UPF	UPF	U	UN	U	U	UPF
F(20)	PF	O	UPF	UPF	PF	F	F	PF
T(25)	N	B	F	U	NF	UPF	UPF	UF
M(32)	B	N	UNB	UNB	NB	UNB	UPB	UNB
C(44)	UPF	UPF	PF	UPF	UPF	UPF	PF	UPF
B(81)	B	UPF	P	O	UPF	UB	UPF	UP
M(94)	UNF	UP	F	F	UPF	PF	P	PF

Table 33

DCM₂

Session	2	4	8	10	13	14	15	overall
Trainer	UF	UNF	UPF	UPF	UNF	UPF	UF	UF
B(23)	F	UPF	PF	UPF	UPF	F	UPB	UPF
G(64)	UF	UPF	UP	PF	NB	P	P	PF
D(73)	P	NB	NB	U	UNB	NB	UNB	NB
H(82)	NF	UP	UP	B	F	UF	F	F
Da(87)	UNB	UP	UB	N	O	UPF	UP	U
K(90)	NF	F	N	UNF	PF	UN	UF	F

were quite different from each other, when determined by the group members themselves. This researcher did not expect that the trainer in the SAT treatment would receive as little recognition through these sociogram choices. There were instances in both SAT groups when the SAT trainer's s.p.d. was 0. This occurred when there was either (i) a complete absence of votes on any of the dimensions, or (ii) a small but equal number of votes on both aspects of a dimension and which, when subtracted, cancelled each other out.

When looking at the trainer descriptions from sociogram s.p.d.'s it appears that the SAT trainer was a person whom the other members felt farthest from and who evoked negative feelings through his performance in the group. In both SAT₁ and SAT₂ this negativism towards the trainer is present. Additionally in SAT₂ there is a backward (B) anti-task association with the trainer as well. It might be considered as rare, at least in the small group learning situations which this author has either observed or participated in, that the trainer of a small group is considered an, un-cooperative, personal goal-oriented individual. This result is especially strange since it was the trainer in both SAT & DCM treatments who had initially formulated the task.

The trainer in the DCM treatment received the expected UPF or UF direction with some consistency. It could be noted

that there are periods in the sessions of each DCM treatment when the trainer receives N rather than P directionality. In the DCM₂ group this ambivalence of feelings toward the trainer results in an UF direction only. This group did not seem to be able to resolve their feelings about the trainer in either a P or N direction. It might be anticipated that in a small learning group, where the format is very similar to that of a seminar or small classroom and the emphasis is more on learning material which is content or book-oriented, the trainer would emerge with controlling (U) and task-centered (F) direction in our group space. From the sociogram analysis of the DCM trainer this holds true.

Comparison of the descriptions of high interactors derived through IPA and sociogram analysis

There is a certain discrepancy between the overall IPA descriptions and the overall sociogram descriptions of these high interactors. The most basic difference seems to lie in the presence of upward directionality on the IPA results. This does not appear as readily through the sociogram. The nuances of scoring IPA and sociogram have previously been explained and the absence of D responses to the initiated-received dichotomy was pointed out as a liability of the IPA method of arriving at these s.p.d.'s. For the sociogram analysis the absence of U can

often be misconstrued. Remembering that only one person can receive U each time a response to a sociogram is required from each rater the lack of U material in the overall s.p.d.'s of the sociogram should be considered with caution.

Although the IPA results have been taken as the standard and as the most objective picture of the true s.p.d.'s of the group membership, there is a considerable amount of meaningful information garnered from the sociogram. Some of its value has been previously discussed. In terms of the comparison with the IPA results in Table 34, it is shown that the sociogram is a better discriminator for the Negative (N) and Backward (B) aspects of member personality. The Interpersonal Ratings Questionnaire suffered from a weakness on certain keyed items on the P-N, and F-B dimensions. The IPA method of arriving at s.p.d. has liabilities on these two dimensions as well (p. 198). In this light the sociogram demonstrated that certain individuals who previously appeared more neutral or positive on the affective dimension, or who were more neutral or forward on the task dimension, had elements of negativism and backwardness. Examples of this distinction between IPA and sociogram are most clearly evident when an examination is made of the comparative table on p. 235.

TABLE 34

Comparative analysis of s.p.d.'s for high
interactors using I.P.A. and sociogram.

SAT ₁			DCM ₁		
	<u>I.P.A.</u>	<u>Soc.</u>		<u>I.P.A.</u>	<u>Soc.</u>
Trainer	NF	N	Trainer	UF	UPF
K(2)	UPF	F	F(20)	UNF	PF
J(3)	UPF	PF	T(25)	UF	UF
E(29)	UNF	UNF	M(32)	UNF	UNB*
B(30)	UP	U	C(44)	UNF	UPF
L(40)	UPF	UPF	B(81)	UF	UP
C(63)	UN	B*	M(94)	UNF	PF
M(66)	UP	UPF			

SAT ₂			DCM ₂		
Trainer	UF	NB	Trainer	UPF	UF
P(1)	UF	UNB*	B(23)	UF	UPF
D(42)	UF	PF	G(64)	UF	PF
N(48)	UN	NB*	D(73)	UF	NB*
J(80)	UF	U	H(82)	UN	F
R(89)	UP	UPF	Da(87)	U	U
L(92)	UNB	UF	K(90)	UF	F

A Final Determination of the Group Space Locations for the High Interactors in all Four Treatment Groups

Up to this point the 3-D locations for the high interactors have already been determined through interaction analysis, Interpersonal Ratings Questionnaire, and sociogram analysis. Each of the methods of determining the s.p.d. was discussed and the assets and liabilities of each method described. Taking all this information into consideration it should be possible to determine a final s.p.d. for each of the high interactors. Where any doubt exists regarding the determination of these directions the author is responsible for the decision to place the group member in a final location. In the isolated case of certain members a decision might have to be made, for example, about the final allocation of F rather than B. In such a case the author used his clinical judgement, his knowledge of the test instruments, and the experience of having viewed all the sessions, both live and on video-tape, to make a final decision.

Table 35, gives the results of this final determination of the s.p.d.'s for high interactors. Examination reveals more similarity than discrepancy across treatment groups. The first impression is of a remarkable commonality.

As a means of making comparisons on these results a table has been constructed which reorganizes the group space

Final Determination of 3-dimensional group space locations for high interactors in all four treatment groups using the available analytic data

	I.P.A.	Quest.	Sociogram	Final Determination
SAT ₁				
Trainer	UF	UNF	N	UF
K(2)	UPF	PF	F	PF
J(3)	UPF	UPF	FF	UPF
E(29)	UNF	DF	UNF	UNF
B(30)	UP	UP	U	UP
L(40)	UPF	UPF	UPF	UPF
G(63)	UN	UPF	B	UNB
M(66)	UP	UPF	UPF	UPF
SAT ₂				
Trainer	UF	UNF	NB	UF
P(1)	UF	UP	UNB	U
D(42)	UF	UP	PF	UPF
N(48)	UN	DN	NB	NB
J(80)	UF	UP	U	U
R(89)	UP	UPF	UPF	UP
L(92)	UNB	UPF	UF	UNB
DCM ₁				
Trainer	UF	UPF	UPF	UPF
F(20)	UNF	UPB	PF	PF
T(25)	UF	UPF	UF	UF
M(32)	UNF	U	UNB	UNB
C(44)	UNF	UP	UPF	UNF
B(81)	UF	UPF	UP	UPF
M(94)	UNF	UPF	PF	UPF
DCM ₂				
Trainer	UPF	UPF	UF	UPF
B(23)	UF	UPF	UPF	UPF
G(64)	UF	UPF	PF	PF
D(73)	UF	UN	NB	UNB
H(82)	UN	UPF	F	UNF
Da(87)	U	UP	U	U
K(90)	UF	UPF	F	UF

TABLE 36

Categorization of final s.p.d.'s for high interactors:
across groups

	UPF	UF	UNB	PF	UNF	U	UP	NB
SAT ₁	L(40) M(66) J(3)	Trainer	G(63)	K(2)	E(29)		B(30)	
SAT ₂	D(42)	Trainer	L(92)			J(80) P(1)	R(89)	N(48)
DCM ₁	Trainer B(81) M(94)	T(25)	M(32)	F(20)	C(44)			
DCM ₂	Trainer B(23)	K(90)	D(73)	G(64)	H(82)	Da(87)		

locations and categorizes the final s.p.d. locations of these high interactors across groups. Looking at this last comparative table it can be seen that there are a number of group "types" which appear in both treatments. Six role "types" satisfy this criterion. They are UPF, UF, UNB, PF, UNF, U. The remaining two typologies only occur in the SAT treatment, and one high interactor in the SAT₂ group is the only person to be located in negative-backward space.

Of the six types which occur in both treatments there are three which occur in every treatment group. These three are UPF, UF, UNB. Since these types occur at least once in every treatment group it might be suspected that they are roles which are crucial to group structure. An examination of the actual group performances of these members, through interaction records, sociograms, group dialogue, diaries, or clinical impressions should reveal the similarities and essential qualities of these members. In this respect R.F. Bales (1970), has provided clues about where to look for the evidence of each group performance.

The UPF members (a) Interaction profiles: Usually they are the highest of the high interactors. Their interaction profiles demonstrate the tendency to initiate more positive statements than they receive, although they generally receive a considerable amount of positive feedback. The

best example of all the UPF individuals is M(66) in SAT₁. The profile of total group interaction (p.139) shows considerable activity in both the questions (C) and answers (B) areas. M(66) provided a great deal of suggestion, and opinion in the group and was in turn provided with a good deal of this information by others. Similarly he initiated and received questions a great deal. Contrary to expectations his negative reactions are high, as well as the reception of negative reactions from others. The profile of the Trainer in DCM groups is also a good example of the UPF individual. In both DCM groups the trainer was higher on initiation in areas A, B, C, than in receiving. Especially so in area B where he was continually giving opinion, suggestions and information. His initiation of negative reactions was considerably less than the number of negative reactions directed toward him. M(66) concerned himself with overlooking or denying negative feelings. This is especially true when such feelings would interfere with the task at hand. He may have denied his negative reactions to some members in order to promote group achievement.

(b) Sociogram results: The UPF members are high vote getters on the sociogram; especially on the upward dimension. This could be a direct result of their high participation rates. They also tend to receive a large number of votes

on the forward or task dimension. It seems that the UPF members are reviewed by others as associating closely with the task, as presented by the trainer. In this way the UPF members themselves may be demonstrating their high trainer identification through a work ethic directed toward the trainers assigned task. Although not the best choice to demonstrate the voting patterns for UPF members, since his orientation toward control and his task directionality should be assumed, the scores on the sociogram for the Trainer in both DCM groups, as well as M(66) in SAT₁ M(94) in DCM₁ and B(23) in DCM₂ are good examples of the positive, controlling UPF profile expressed through the sociogram voting records.

(c) Group dialogue: Selected examples of the highly positively focused, co-operative, task oriented but somewhat power driven behavioural styles of the UPF members are provided below. These excerpts demonstrate the tendencies for these UPF members to speak directly to the group rather than to individuals, to deny negative feelings for others, and to promote their own values whenever possible.

M(66) Male SAT₁ Session 3

"Yeah, but there (coffee) you can talk about any topic you want to. Ah ... you know ... this is playing games, isn't it? You know, sort of the stroke

game of Berne. People play games like that whereas here we know that we've got to ... you know ... we tried this general chit-chat between us and we realize that it is not getting us down to what we are mainly now having silent periods, I'm sure, because we know that ordinary conversation topics just won't do ... maybe if someone in the group were more direct, you know, and said "Look, what do you think of this?", maybe then you would speak more because you are put on the spot.

L(40) Female SAT₁ Session 3

"I'll have to admit that this whole procedure and everything about it rather upsets me because maybe I'm ignorant when I leave but I think that people don't usually bring out their bad sides, to me, and that's exactly what we seem to be doing in this group. We're going to pick people apart, probably, in the next remaining sessions ... that's what I think we're really going to do. So, another thing that really bothers me is uh, well mind you, I don't dislike you or anything like that for it, I mean, you know, it doesn't have any effect on my feelings for you, just about the group, not people, the setting in general and uh like our feelings toward the Trainer. I didn't feel that way towards him at all. And I felt

rather guilty that you people should because it wasn't a very nice thing to say or feel. I mean if you did, you did, and it can't be helped."

M(66) Male SAT₁ Session 7

"Now, for any individual, organism to function efficiently, right, there's got to be co-ordination between you know, the systems, the organism, within the living thing, O.K? Now, for this group to function efficiently, there's got to be co-ordination between the members, there's got to be adequate communication. There's got to be release of emotions, release of feelings, as the person within the group, as an individual sees fit. We're not doing it as far as I can see. We're not aiming at coalescing as one complete unit ..."

L(40) Female SAT₁ Session 11

"...I don't hide how I feel; I don't think, I just don't feel strongly about people. I, you know, I like all, I love few, and I hate none."

"...You see the emotion that really used to bother me was disliking, hate, being bugged by someone, you know, that used to really get me an awful lot. And it really used to emotionally upset me, unbelievably and so I just, it just wasn't worth it; its not worth it, I mean, you're here for such a short time on this

earth, making life the best you can do - the very best - what are we here for if we can't be happy?

"It's not going to change my whole life if someone hates me. It might change my whole life if someone loves me ...I think this one thing."

D(42) Male SAT₂ Session 5

"The question is going to come up sooner or later; what are we accomplishing?"

"I was just thinking that if we just sat around here talking to one another we'd get something done, but now there are three of you talking and here I'm sitting ..."

D(42) Male SAT₂ Session 14

"I'm only saying that we're reacting to superficial things we're not reacting to the personal things about people, we're not expressing these ..."

(d) Diaries: The diaries for the UPF members give a helpful perspective on their behaviour since they are tainted with the additional rationalizations and defensive gambits common to individuals explaining themselves to others. Particularly obvious from a persual of the UPF member diaries is a negativism not manifest in group dialogue.

M(94) Male DCM₁ Session 3

"I don't think that I felt any hostility towards the trainer but more annoyance at myself and the group

for not having made maximum use of the time. I want to open up - I want the group to open up!" M(32) annoyed me but now I see that she wanted to open up but the attitude of the group was much that they did not want this."

B(23) Male DCM₂ Session 11

"D(73) represents a threat to the nice cozy set-up we have now, where the trainer has the major concerns."

M(94) Male DCM₁ Session 9

"I think we have reached a point where several members of the group are ready to express their true feelings and emotions, others are not. What would happen is that those who are ready will play increasingly dominant roles and those that are not ready will play increasingly insignificant roles. I hope that by getting together outside the classroom we can make "not ready" people feel that a situation of trust is present."

M(94) Male DCM₁ Session 10

"I am getting the feeling that my comments are not generally accepted and therefore my feelings are having little effect on the group. In fact I am a little fed up with the whole affair."

D(42) Male SAT₂ Session 11 - 12

"Everytime I hear someone say we are talking superficially I get very angry. Sure my talk may be superficial to them but it does not follow that it is superficial to me."

"I think that even from the beginning of this group P(1) has wanted to fulfill or play the role as leader. I have felt many times like shooting her down off that golden pedestal."

M(66) SAT₁ Session 2

"I have the impression that I am attempting to structure the group to manipulate them into a situation where I feel we might progress toward our goal, whatever that may be. Furthermore, my groping attempts to become leader appear to cause no adverse ill-effects."

M(66) SAT₁ Session 5

"I was looked on by most of the group as the person who could support and lead the group. I was both elated and embarassed."

M(66) SAT₁ Session 6

"A break through occurred today when we (J(8), L(40) and myself) realized that an important stepping stone for advancement was that as members of this group we were playing fewer games with each other, and adopting fewer roles than people outside the group ...

The others must be questionned on this next session, and possibly to help them to be aware of this new "group-self".

M(66) SAT₁ Session 9

"In summary, the one major point to arise from the group today was that all of us are now beginning to realize that in order to function efficiently and effectively the whole group has to co-operate actively together. This, I'm sure, is the state we are progressing towards."

L(40) Female SAT Session 4

"M(66) wondered, as did I, how the breakthrough into real deep personal relationship was going to come.

L(40) SAT₁ Session 6

"I'm really afraid of people being hurt by something some angry person says."

L(40) SAT₁ Session 7

"B(30) is beginning to bother me and I know she is bothering others as well. I'm expecting someone to attack her soon ... (but) I'd rather avoid anything that might hurt anyone.

The results of this analysis of the UPF role type when the evidence from interaction profile, sociogram, group dialogue and diaries are considered is a complex picture.

Primarily the UPF members are active and talkative personalities. On the face of it they are outgoing, friendly and very intent upon influencing their fellow members. Their interaction is heavily weighted toward giving suggestions and opinions about their idea of the task. They act somewhat as the "translators" trainer-member confusion and do so with an emphasis on positive attitude and a willingness to compromise. They seem to be seen by other group members as valuable individuals, probably because of their intellectualizing and their obvious concern about others.

From the group dialogue there is evidence of their tendency to speak directly to the group, as a politician might, and to talk about the group as "we" or "you". This is in line with the advancement of co-operation and group unity. Additionally they overlook negative reactions to them whenever possible but do so with a surreptitious awareness of its intent. The result is often a reflection, through the diaries, of the latent negative feelings about certain other members and behaviour towards these members which they conveniently overlooked at the time of the initial occurrence. The picture of the UPF role typology then is one of the "manipulative politician".

Bales' (1970) description of the UPF personality shows a remarkable similarity between the objective evidence

of member performance arrived at through this analysis and Bales' projected group performance. A capsule description of Bales' UPF type is provided below.

UPF: "Toward Social Solidarity and Progress:

Ascendant and friendly, takes initiative in task or value-oriented direction. Depends upon the power of positive feelings to submerge, deny, or transform negative feelings and dislikes within the group.

Where task is given by the authority he is most likely to show a high interest. Most generally prone to say he likes others, and to deny disliking them, in the interest of the task. When group members are asked to rate each other on "leadership", a UPF member is generally chosen (Bales, 1970, (pp. 208-9)).

The UF members (a) Interaction profiles: They tend to be among the medial interactors. They are not low in interaction rates but not as aggressive as they might be if more emotionally committed to the group. The best example of the UF profile is the SAT trainer. His interaction pattern demonstrates that he receives more interaction in the emotional areas (A and D) than he initiates. His role was to remain emotionally neutral and for the most part he seems to have succeeded. Additionally the SAT trainer initiates more suggestions, opinions, and information than

he receives from others. He is also the receiver of questions from others (c) rather than asking for such information himself. The result is a pattern of emotional blandness with a heavy emphasis on controlling the group through cognition and information flow. This behaviour could be considered an attempt to cultivate dependence by controlling the task resources. Other UF member profiles are not so obvious as in that of the SAT trainer. They do however, in the cases of T(25) and K(90) show more than their usual interest in categories of suggestion, opinion, and information giving while receiving less of this material than others might who were equivalent in total interaction. This lack of interaction received indicates that acts addressed by UF members, SAT trainer included, are addressed to the group rather than individuals. Such group directed interaction provides also evidence of the power needs of these members on the cognitive dimensions.

(b) Sociogram results: The voting pattern of other group members towards the UF members is generally sparse. They do not receive large numbers of votes on any particular dimension. When these UF members receive votes, especially in early sessions, they are in negative and backward directions. This indicates a lack of initial acceptance, by other members, of the present

performance of UF members. In the early meetings of the group it may be considered more beneficial for the UF member to feign interest, concern or affection. Others may react negatively when the UF members do not successfully follow this routine. Later, when the group seems less emotionally involved, the UF members acquire more votes on the control dimensions and others begin to see them as task "valuable".

(c) Group dialogue: The selected excerpts indicate the emotional neutrality of UF members and the attempts to work on the intellectual, rational sides of the membership by controlling information flow and promoting group co-operation towards the task at hand, usually through phrasing remarks in a "collective" fashion.

Trainer SAT₁ Session 2

"The group is happily ignoring the task"

"The group is engaged in drawing boundary lines"

"The group is entering into an open conspiracy to destroy the trainer."

Trainer SAT₁ Session 6

"The group is engaged in constructing a myth about what they have learned in this group; and what sort of group it was anyway."

Trainer SAT₁ Session 14

"The group is beginning to realize that in reality it has completely disintegrated"

Trainer SAT₂ Session 1

"The group is looking for a scapegoat"

"The group is trying to discover the limits of the authority of the trainer"

Trainer SAT₂ Session 7

"We're watching a leadership struggle."

(d) Diaries:

T(25) Female DCM₇ Session 6

"The new approach of direct personal interaction in learning boosted my enthusiasm, interest and satisfaction in the course for we could "kill two birds with one stone" - learn about people in a group, plus having direct involvement in empathic understanding. Learning from others and where I am wrong.

T(25) DCM₁ Session 7

"I enjoy this session more than any before because the trainer wasn't present for most of the time. I felt more at ease with myself and others. I could really express where my doubts and knowledge lay."

T(25) DCM₁ Session 8

"I felt the trainer didn't define our task for the session specifically enough. I was lost as to

exactly how to participate without causing unnaturalness and frustration."

K(90) Female DCM₂ Session 2

"A structured session gave us more to work for, and because the members know the object of the lessons, or activities given, they were better able to communicate their ideas to one another."

K(90) DCM₂ Session 10

"For myself, I think other members are able to sense my honest desire for factual knowledge as well as trust and loyalty among group members."

K(90) DCM₂ Session 12

"I still feel somewhat of a failure due to my incorrect "readings" of most members of the group. I guess I realized last session that it was more important for me to gain some useful materials for the future than to attempt to organize group interaction, especially since there doesn't appear to be any real interest in the group."

The analysis shows that for UF members any personal involvement which is present is kept to a minimum. The emphasis is placed upon achievement through group harmony. The UF members act as a "group conscience" and a reminder to the group that a task is always present and not forgotten.

They rely a great deal upon guilt inducement because of their group performance and tend to turn people off as a result. The sociogram results bear evidence of an initial rejection of UF members who do not show their feelings but are overbearing in their approach to "progress." Their value to the group increases as group life is prolonged. In later sessions they achieve more prominence as their insistence on performance and product begins to win favour. They are seen less negatively by others as a consequence.

The group dialogue and diaries show the tendency for UF members to speak of the group as "we", "us", "our group". The use of such terms promotes co-operation and is a similar approach to that used by the UPF "politicians". Similarly they show a conspicuous desire in the diaries to be considered more important group members than they are perceived to be in the group. They are willing to report this to the instructors who read the diaries but not to the group members. A descriptive term for the UF group personality might be that of the "shrewd businessman".

Again there is a remarkable similarity between the expected group performance for UF "role typology" as described by Bales and the actual performance described here. A capsule summary of Bales' UF role is reported below:

UF: "Toward Group Loyalty and Cooperation"

Takes initiative, or leadership in giving suggestions. Seems ascendant, but impersonal. Identifies himself with a larger plan. Main concern is with cooperation and group unity achieved through loyalty rather than positive affectionate ties. Works through persuasion. Method is simple and insistent upon communion and cooperation (Bales, 1970, p. 213).

The UNB members (a) Interaction profiles: The UNB members are among the highest of the high interactors. The most outstanding example of this type is D(73) in DCM₂. He initiates very few positive statements (A) but is the highest initiator of negative statements (D). He has more positive reactions directed towards him than he initiates to others and he also is the receiver of many negative reactions, although they do not overcome his own initiation of negativism. The UNB member is not a high interactor in the suggestion, opinion, or information area (B) but receives considerable feedback from others in this area. Additionally his initiation of questions to others is quite low (C). The lack of output in the task area may well demonstrate two things: (a) the UNB individuals tend to address the group a great deal; (b) they have their own personal agenda which is frequently anti-task, and anti-trainer; and which finds expression

through deviance, disagreement and hostility. This accounts for the high negative reaction (D) results.

Other UNB members do not have profiles which correspond directly with D(73). The others do however show high negativism and less concern with task (B, C) activity than most of the other high interactors. The high positive scores of some UNB members can be explained through their predominant use of joking and fantasy to express their deviance from trainer initiated activity. Inevitably these members show high activity in Category 2 (jokes, fantasy) and this anti-task interaction will be reflected in the group dialogue, and to some extent in the diaries.

(b) Sociogram results: The subjective voting records of the group members are in almost total agreement with the objective IPA results for these UNB members. They are considered by their fellow group members as powerful but negative and deviant participants. The reaction of most participants is to reject these members and to see them as disruptive and unco-operative. The voting records show little change over time but a consistency in reaction toward the UNB members, a consistency reflecting disenchantment and discomfort.

(c) Group dialogue: The UNB members are seen through group dialogue as demanding, high in negative confrontation, poised against authority as it is vested in the trainer, unco-operative and oriented towards their own personal goals.

G(63) Male SAT₁ Session 1

"He (trainer) is supposed to be the big leader and he was going to lead us out of the desert, and we were going to know what to do with everything."

G(63) SAT₁ Session 2

"I sort of felt that way, too, probably ignoring everything he (trainer) says. You know, just trying to shut off the conversation."

G(63) SAT₁ Session 8

"I don't expect we'll ever make that much progress; you know ... we'll never see the progress anyway ... we're attributing too much to what the Trainer's saying ..

G(63) SAT₁ Session 13

"...we asked you (M66) and you said,

"No one is expressing their emotions, well why don't you jump on the guy when he isn't expressing his emotions.

L(92) Female SAT₂ Session 4

"They (trainers) do sensitivity training. I guess its rather a grueling experience. You can get yourself really screwed up there!"

L(92) SAT₂ Session 12

"He (trainer) keeps changing the subject. Any time someone starts talking about what they want to talk about, he changes the subject and everyone hates

him."

L(92) SAT₂ Session 13

"If you think somebody hates you, you know, and you really feel badly about it, say something about it, don't just sit there and feel terrible." ...but you're not getting the point, I mean, I'm not saying it's not going to bother you if he hates you, if he hates you it's obviously bothering him ...its not a matter of being friendly, sometimes you have to be very blunt ...if you're hurting the person just for the sake of hurting them that's one thing, if you hurt them to make them understand what they're doing, well...

L(92) SAT₂ Session 15

"It's just the same as a prof, drags on and on, puts you to sleep and you don't even know what he's trying to say..."

(d) Diaries:

D(73) Male DCM₂ Session 1

"I consider myself a good judge of character. Now in this group I will not hit it off too well with most of the members, however I am not saying they are bad people, I am saying they are not my type."

D(73) DCM₂ Session 2

"There was no leader and I know we will not have a good leader unless I decide to become the leader."

D(73) DCM₂ Session 12

"If the task of the groups is to learn of empathy, congruence, and positive regard then today's session was a waste of time... He (trainer) was obviously unaware that the group does not appreciate his attendance."

D(73) DCM₂ Session 13

"It was I who initiated original discussion, provoked conversation, removed boredom, and more. The Trainer has never been able to accomplish this in twelve sessions."

D(73) DCM₂ Session 14

"He (trainer) offered some feeble excuse by putting the blame on us, saying he tried to get us involved but failed. That was a classic, because I always felt he was almost twisting our arms to make us listen to him. In any event he tried to rectify the sad situation he put us in by implementing my suggestions"... I didn't wish to get involved because I have had more intellectual conversations talking to my chair!"

G(63) SAT₁ Session 4

"I felt most misunderstood. Here I was telling the group I wanted to keep it from splitting, and the group felt hostile to me for various reasons...they are all resentful towards me because I have made them

feel guilty because they have not read diligently or because they can see they were not getting anywhere."

G(63) SAT₁ Session 2

"I disliked M(66) for his overbearing attitude and his easy rhetoric. I was displeased with J(3) because of her apparent lack of interest in human value. I felt that the role of the Trainer was a rather comic one because he seemed to be trying so hard to alienate himself from the group."

The UNB members, as described from this analysis are influential group members in an idiosyncratic fashion. They are domineering and overbearing. They set up their personal goals as standards for the group and work towards their adoption. Generally they are negative, or at least distrustful of others, and especially so towards authority. Much of their group time is taken up undermining the trainer's influence and trying to disenfranchise him.

These UNB members are highly interactive, talkative and prone to flights of fantasy. The lengthy ego trips of L(92) in SAT₂, which were presented earlier on page 203, are the best available examples. These fantasy trips may be attempts at influencing the other members in line with the present anti-task approach of the UNB members.

If they are rejected, or fail to influence the more impressionistic members there maybe negative backlash directed at the more positive and task oriented members. It was demonstrated earlier (p.173) that M(66) in SAT₁ was challenged for leadership by G(63). Similar reactions took place in other groups between the UPF members and the UNB faction.

The other group members seem to successfully see through the UNB "game plan" and react negatively towards them personally and with respect to the task. The voting records from the sociogram demonstrate that UNB members were considered among the persons least agreed with, and persons whom many felt farthest from.

Part of their influence seems to come from their ability to defy authority without serious repercussion. The diaries and group dialogue demonstrate the feelings of omnipotence of UNB members and their frequent anti-authority reactions. They very likely generate fear in other members and gain power as a result of such negative influence. Other more submissive individuals identify with UNB members and these UNB members continue to receive support for their deviance from these more submissive members. Their skepticism and pessimism about group success finds support among the group members who are less dedicated to group work. A descriptive term for the performance of these members might be "resident cynics".

Bales' description of the expected group performance of the UNB role typology is again provided. The comparisons with the objective data previously outlined, is similar and offers support for Bales' contentions about the performance of such UNB group members.

UNB: "Toward Rugged Individualism and Gratification:

Dominating, self-confident and rebellious toward authority as well as hostile to other persons. He seems self-centered, deviant, exhibitionistic and exploitive. Trying to move toward self-gratification. Identified with the power to defy authority and rise above and outside the law." (Bales, 1970, p. 238)

The three role typologies which occur at least once in every treatment group have been described in some detail. The descriptive labels of "manipulative politician" (UPF), "shrewd businessman" (UF) and "resident cynic" (UNB) were used to help describe the respective group performances of these members and the particular kinds of functions they serve in the group.

As an additional point of comparison it should be noted that these three role types are especially distinctive on the objective (P-N) dimension of the group. There is a positive (UPF), neutral (UF), and negative (UNB) member in each group. Such a complete affective range permits complete expression of the emotional feelings in the group.

There is no downward direction found within these three most frequent group roles. This is understandable in that these highly verbal members are not at all likely to be rated downward. It is also noted that both pro-task (forward) and anti-task (backward) directions are expressed in each treatment group when these three distinct group types are represented.

There are two other role types which occurred in three of the four treatment groups. Although they might not be considered as crucial to group structure as the first three types, since they do not appear in some groups, they do perform a particularly vital function in their respective groups. These two role typologies are PF and UNF. A parsimonious description of the group performance of these role types will be considered at this point.

The PF member: (a) Interaction profile: Not the highest of the interactors but often above the average in positivism (A). His rate of negative reactions is only average. The best example of this is K(2) in SAT₁. His rate of positive reactions is more than double his reception of such acts and while his negativism is high it is well below that of other highly interactive members. There is a tendency to highly interact in area B, by giving suggestions, opinion, and information but less interaction in

area (C), questions. The high interaction in the task area (B) is part of the approach to group work and of PF members attempts to foster co-operation towards some form of achievement.

(b) Sociogram results: Show low voting for PF members because they do not appear aggressive enough to command serious attention. The votes they do achieve are gathered early, probably as a result of the fostering of positive feelings in the face of a new experience. Voting allegiances then begin to fade.

(c) Group dialogue: K(2) Male SAT₁ Session 4 (A good example of the undecided, soft-hearted and apologetic nature of PF role types is the way in which this individual proposed to eliminate the trainer).

"Well, from our point of view, after having, you know, partaken of these discussions for, what's this, our third or fourth one... I'm just wondering if...you know, I wouldn't mind seeing how things would go without the trainer here."

K(2) SAT₁ Session 5

"You know, I think though, whether or not it was the result of G(63) and his, you know, ideas of his readings or what. But I think last weeks' discussion was about the best we've had, and I think one of the reasons being that, you know, here Greg was, uh,

sort of not afraid, if you will, to come out and really speak his mind, you know, cause I mean, thinking about that time and myself. Here I am, sitting and, and really, I'm still, you know, a bit well, inhibited about, you know, really coming out with a lot of , uh, things among the group you know. And it seeing Greg last week, ah, you know, as it were, voicing his opinion and then other people, sort of getting back at him. You know, to me, I really felt that, you know, we had things really going. What I'm trying to say is I think that maybe this is sort of what we need is something like this to, uh, I don't know, get us stimulated or something."

(d) Diaries: G(64) DCM₂ Session 3

"After a slow start this session left me very happy buoyed up and convinced of those feelings I have on the value of close interaction, in depth between peoples. In my own mind I think I have discovered, experienced the meaning of empathic understanding...and I deliberately led myself into a situation of revealing my feelings...I hope the group can come to communicate the way I was ready to during this session.

K(2) SAT₁ Session 4

"The group appears definitely closer to one another. I feel closer to the individual group members.

I also feel more at ease, free to speak my mind. A break through has been established among the group members as far as communication is concerned...the group seems to have passed from an impersonal phase to a more personal phase...developing a trustworthy feeling toward one another."

The PF type is characterized by an unfailing faith in positive affection. Friendship and love will conquer. The function of the PF member is to boost the failing spirits of those members who lose faith in the task and to promote group cohesion whenever possible. They have an implicit belief in the good nature of authority and are agreeable and somewhat docile in their obvious dependency. They advocate co-operation and might be considered somewhat like the party host, whose main objective is to get through the evening without incident or embarrassment and who would like, in the last analysis, to be considered a nice person for going through all this inconvenience.

Bales' description of the PF type is provided here.

The similarity with PF type described above is obvious.

PF: "Toward Altruistic Love"

Agreeable and friendly, task and value oriented.

Not submissive or ascendent, but equalitarian.

He seems serious and responsible about group

agreements. He believes in the power of goodness and idealization to make things right in the world. He sees the good in others rather than the bad and tends to raise their status. (Bales, 1970, p. 265)

The UNF members: (a) Interaction profiles: They are not among the highest interactors. The main feature of their interaction profile is a tendency to have comparatively higher negative (D) reactions than other individuals with similar amounts of total interaction. E(29) in SAT₁ is one of the lowest initiators of positive reactions but has triple the amount of negativism. Their activity rates in task areas B and C are only average, or less than average.

(b) Sociogram results: There seems to be no consistency in the way these UNF members are viewed by others. E(29) was a "late bloomer" who accumulated considerable power towards termination; C(44) was always a large vote getter, and H(82) was very unpredictable. The only dimension which does show commonality is in the ability of UNF members to be considered major spokesmen at particular times. This control (U) dimension is the strongest feature of the UNF sociogram voting pattern.

(c) Group dialogue: (Numerous examples of excerpts from the dialogue of E(29) SAT₁ are available on page .

(d) Diaries: H(82) DCM₂ Session 5

"Most of the arguments against criteria were led by D(73). I became suspicious of him already in the last session, but now I am almost certain he is a plant: he has a sharp mind but is not a very good actor."

H(82) DCM₂ Session 6

"I think everybody feels that this paper-analyzing and role-playing is phony and that they would rather relate to some real human beings."

H(82) DCM₂ Session 7

"All are generally interested in the project and are impatient with the progress."

C(44) DCM₁ Session 11

"I just felt fed up with the organization of this course and I told everyone how I felt...I really felt like a guinea pig - like I was being manipulated by the experimenters who are playing with our emotions."

C(44) DCM₁ Session 15

"Sometimes people have to be confronted with the truth if they are avoiding it or if you notice any incongruence between what they say and how they

appear to feel."

The UNF role type seems the hardest one to define. The negativism is latent or manifested in a reaction to outsiders such as observers, or instructors, or towards the trainer. The attitude of UNF members toward the task is often very veiled. There are initial appearances of exuberance and excitement, especially in the DCM treatment group but this enthusiasm fades after a number of sessions. Comments are then made by these members such as "the task is too hard", or "the learning period is too short". They also speak of other group members as not trying hard enough. In this sense the UNF members seem very achievement oriented and attempt to establish such group values as work and seriousness. They express a desire to be more influential in their group but generally they seem unsuccessful in persuading other members to support them. The sociogram voting records demonstrate this inconsistent support. They seem to react adversely to the very positive members especially the UPF, and PF members, they do so by means of sarcasm and less overt forms of negativism. As a rule they seem to lack trust and are suspicious of others.

The picture portrayed by the Bales UNF type is not necessarily in agreement with the data presently accumulated. The description arrived at through this analysis has

portrayed the UNF member less negatively than the expected description provided by Bales'. The UNF members in these treatment groups do not seem to be quite so disliked by others, nor do they appear so moralistic. A good descriptive term for the UNF might be "disenchanted contender."

UNF: Dominating and unfriendly. Takes initiative in value or task orientation. Assumes moral superiority and regards himself as the authority and guardian of the moral and legal order. The most disliked of all members - the UNB members view of others is not flattering. Advocates a view of human relations where everyone must be on his guard. Views the world as a jungle. Not especially likely to guess that others dislike him although they do. Willingly undertakes the unpleasant but necessary tasks of the group. Emphasizes discipline and control (Bales, 1970, pp. 220-1)

Up to this point there have been five "role types" discussed. These five types are the most frequently occurring high interactor roles. Three of these roles were represented, at least once, in every treatment group. They were the UPF "manipulative politician", the UF "rational businessman" and the UNB "resident cynic." The two remaining roles, of the five discussed to this point, did not occur in every treatment group but did occur in

three of the four treatment groups. They were the PF "party host" and the UNF "disenchanted contender."

Altogether these five role typologies account for 23 of the 29 high interactive group members chosen for discussion.

The six remaining high interactors are located in three additional role "types". Three are listed as U, two as UP, and one as NB. Of these six remaining members five were located in the SAT groups and one from the DCM groups. It might appear on the surface that the SAT treatment seemed to generate slightly more role diffusion across the high interactors than did the DCM treatment. These last three role typologies will now be considered. Because they appear to be of lesser importance than the major roles outlined earlier they will not be covered in as much detail. Instead a brief, more succinct outline of each group type is provided.

The U members: Interaction profile: These U members are very interactive. They tend to initiate more than they receive in all areas, A, B, C, D. The exception being in area D, which is very high in the reception of negativism. This is probably because the domineering, high pressure performance common to U type tends to provoke negative reactions from others. High positive scores are somewhat spurious. This is so because U individuals score very high in category two (fantasy and jokes) and this tends to expand their positive reaction totals. They also receive

extensive questioning (C) from others.

(b) Sociogram results: High vote getters. Especially in an upward, backward direction. Others tend to see them as aggressive, controlling but without good leadership abilities; as a result they receive backward (agree least with) votes.

(c) Group dialogue: Best example is P(1) in SAT₂. She is a very verbal, monopolizing individual. She is prone to flights of fantasy which have sexual and aggressive themes. Taking up a lot of group time she is exhibitionistic and concerned with status in the group. The selected excerpts provided a good example of a typical performance for this U individual.

P(1) SAT₂ Session 5

"Prostitutes are sort of funny, not funny, I didn't think I was that naive when I was working and now I saw all this going on, and I was really shocked for about a week. I couldn't see how come these nicely dressed gals could sit in a corner, right under a red light. Why didn't she come and sit closer to the bar, and this waitress looked at me as if to say how could you be so stupid, she was there for business and then you could gradually see who are the regular ones, and the Mac is noted for having the professionals, they came from Winnipeg and Vancouver, and they come and stay for a couple of days and you

have the ones in the city who stay and wander around, and I guess they're sort of free. They dressed very smartly, colors are co-ordinated, you can tell their hair is just done to a T and I got to know one, she's in Edmonton and she's not really professional, she works in the office in the day time and then...

She just sort of wants a male companion, and like the other night she came in and said; "gee it's dead in town", and I've been to all the places and there is no action...she says, she reminds me. I don't know, I just think the girls get to know one another and they go along and two of them go together and then a guy approaches their table and they say go away we're not free, as they'll buy the most expensive drinks. When we had the big conventions in May, the professionals stayed away because they're being bothered by detectives and things and so the pimps were bringing in girls off the street, but none of these businessmen would want them, their dress, their appearance wasn't attractive so they just wandered from table to table, never got taken.

P(1) SAT₂ Session 7

"I noticed the reflection of the Tory building on the North Saskatchewan River which I never noticed before so I stopped and I was driving about ten miles an hour, and sure enough the cops were right behind

and then I speeded up to about 35 all the way to campus. It was really funny because there were five guys and I was driving and the guy who was sitting next to me was wearing this suit and he was sort of concerned and we were laughing and calling him the father because he was sort of controlling us and then the cops rolled down the windows and he said you must really have an aversion to bridges and we just all laughed and that was it and then we were parked on campus and we were listening to the music and campus patrol came up he wanted my driver's license and I just said look I'm not driving now and I just didn't really care and I took my time, but the bad thing is you can't sleep and so we split about 6:30 or so, and I just tossed in bed for about four hours and I got depressed and all sorts of images were going through my mind, and I finally took a tranquilizer or something to fall asleep I really felt alone, and I was really surprised, the kids were having a great time but this is sort of separate, something different, I really felt guilty, badly, it was beautiful the next day about 80 above and there I was lying in bed."

- (d) Diaries: The U type group member in this example was very similar in many respects to P(1); also a female; she was boisterous, unconventional and sexually aggressive. Her diary reflects in many respects her

group performance, although in a much less free-wheeling, open-ended fashion from what might be expected in the group itself.

D(87) DCM₂ Session 15

"I was outwardly relaxed, but a little apprehensive inside, which I think showed in my nervous chattering. Once, when D(73) answered one of my questions with a smart remark I felt like strangling him - which is exactly how I've felt towards him for the last 10 sessions. I have come to realize something about myself - I overreact to people. I sense their feelings toward me accurately, but I overreact to them..." I also have a defense mechanism - talking a lot, saying smart remarks, talking rather bluntly about things. I am very involved with discovering how I feel in, and towards the group rather than how everyone else is feeling."

The composite picture of U individuals is one of external confidence and internal turmoil. They are highly dramatic, excitable persons with an exhibitionistic flair and a tendency to go on long fantasy trips in the group. Their primary concern is with themselves, rather than with others and as a result they tend to provoke negative reactions such as sarcasm, or disinterest from others. These negative reactions from others seem to result from the

U type members selfishness and monopoly of group "air time". Their closest group ally might be the deviant, backward individuals to whom the U members appeal because of their spontaneity and careless attitude. The result of U type on the group is to become a perpetual topic of conversation. They are the persons who are subject to barrages of questions and answers. Their need for power is evidenced through their attempt to seize verbal control of the group.

Bales' description of the U typology fits closely to observations made of the U members in these groups. The similarities will become immediately apparent. The best descriptive term which could be applied to the U type might be "ascendent extrovert."

U: "Toward Material Success and Power"

Active, talkative and powerful but not clearly friendly or unfriendly. Not clearly task oriented either. A feeling of power through the possession of material things. Perceives himself as talkative and self-confident. Overestimates himself and his powers. Takes up group time through talk and makes no affective contribution." (Bales, 1970, p. 193-94)

The UP members: (a) Interaction profile: They are among the highest of the high interactors, and especially in

the use of positive reactions (A). Their interaction in task areas (B) and (C) is only average. Their negative reactions, contrary to expectation are high. They tend to talk in longer statements than most members, and to speak frequently to the group rather than to individuals. They tend to initiate more negativism than they receive from others and their performance seems to allow them to be critical of others without too much repercussion.

(b) Sociogram results: They tend to get large numbers of votes, but in sporadic intervals. The other members consistently see the UP members as upward and positive, yet react to them with ambivalence when voting on task orientation. In the case of R(89) in SAT₂ there was a pronounced forward voting tendency.

(c) Group dialogue: Excerpts were chosen to demonstrate the long positive statements common to UP members. These members control the group by taking up "air time" and promoting group co-operation. They tend to make use of laughter, joking and fantasy to prolong this control of the group. These UP members seem to deny negative feelings.

B(30) SAT₁ Session 12

"I was thinking, you know, when I was writing this out, about how you (L40) say that you doubt if you can hate a person. I mean is this what, is this the way you said it. I usually get things all mixed up -

if you don't feel you could hate a person, you may dislike them but you couldn't hate them. Alright then you say you love your future husband very much. Now if someone came along and cut him up into little pieces and carted him off, you know, and made a big play for him and took him right out of your life, you wouldn't hate that person or would you just dislike them? I was just wondering. (laughs)"

B(30) SAT₁ Session 10

"Last time I was really interested in what you had to say. I had decided that you (G63) were the scientific type because you just seemed to have everything analyzed down... But I thought you were very interesting, I mean.. I didn't mind very much; or not that I would admit anyway. (laughs.)

...and while coming today, I said "I wonder if they'll pick on me again" and I really felt I was picked on last time (laughs nervously)... and I don't know why!"

R(89) SAT₂ Session 13

"Getting other people to participate in the group, and to get to do that we have to put forth our needs, our feelings, you know, the sensitivity to other persons' feelings. If someone isn't participating it's our job to get that person to take part in the group, to help each other out, this sort of thing, we're supposed to do."

R(89) SAT₂ Session 13

"What L(92) is trying to say is, you know, you can't expect to be positive all the time, but at the same time, you try to be pleasant, to be kind to different people, and you don't have to go out of your way to do that. I mean you should be aware of negative sides too, yes, you don't have to go out deliberately being that way, it doesn't help."

(d) Diaries: The diaries for UP seem to bring out more negative impressions from these members than was indicated in the group dialogue. Similarly there is more talk by these members of "lack of progress" in the group and a concern for a greater influence on the group.

B(30) SAT₁ Session 7

"Everyone seemed so phony - as if there were just talking to say something, and be heard - it had all been said before and in exactly the same way. I found it very frustrating and a complete waste of time. Before the session started I had decided to keep quiet for the session and just take notes because I didn't feel I was learning much."

R(89) SAT₂ Session 4-5

"In this lab I felt frustrated and disappointed since it is clear we are not achieving anything...we have not been able to understand most of the trainer's comments and maybe he is hindering us a bit. We have

been very unkind to him, but he seems undaunted by our sarcastic remarks...too bad he keeps disappointing us!"

The UP members seem, in summary, to be highly positive members within their group for the most part, but they have negative impressions of some group members. Their negative feelings are reflected through diaries or out-of-group activities. Their main source of influence, in addition to the use of positive feelings, comes from the monopoly of group time. They are not overly aggressive and these UP members rely on humour and fantasy to maintain group control. Others address remarks to them a great deal because a remark is usually answered by the UP members in a positive vein. The best descriptive term for these members might be the "popular contender"

UP: "Toward Social Success"

Socially and sexually extroverted, ascendant but at the same time open and friendly. Neither clearly for the task nor against it. Encourages others to interact and give their opinions. Values social success and popularity. Over-expanded image of self and importance to the group (Bales, 1970 p. 200)

The NB member (a) Interaction profile: This member was among the lowest interactors in the significant member category. There was little or no positivism generated.

This member was very low in task activity. Her reception of task information on opinions was also low. The negative reactions were high, and out of proportion with the rest of the interaction profile. There was a great deal of negative feeling directed towards her, and no one spoke to the NB member, except out of curiosity over her group silence, or in an attempt to make her interact.

(b) Sociogram results: Very rarely did the NB member get many votes. The few votes received were negative and backward. Controlling or positive votes are absent.

(c) Group dialogue: Two excerpts are sited to illustrate this members cynical, unconventional, and often openly hostile approach. This behaviour evoked negative reactions. Although not highly active on the few occasions when N(48) did speak the monologue was both lengthy, and prolonged.

Session 14

L(92): "Don't you have a reaction to some of these problems?"

N(48): "My reaction is that, oh, well to begin with my reaction was to the person, what the person said, rather than to the person. And a lot of what people said to begin with irritated me to the point where it just, I didn't, my opinion of the person wasn't good, but there again this is my personal

opinion, so OK, I'm not going to say I disagree..."

P(1): "Why?..."

N(48): "Because"

P(1): "Are you afraid to express how you feel?"

N(48): "No, I'm not afraid to express how I feel!"

P(1): "I know, because last time L(92) and I were disagreeing quite a bit..."

N(48): "A lot of times I don't feel it's important enough to argue about, because unless it's significant, unless it means something to me, I really don't think it's worth the effort."

later in the same session:

N(48): "What exactly are you asking me to respond to."

P(1): "You see, I can't give an answer now, the way you've answered my question, because you're just turning me off, your face, you're very aggressive, you have anger in your face."

N(48): "No, I don't."

P(1): "And a smile can just cover this anger. I don't really feel like talking to you."

N(48): "Well, then don't."

G(82): "Why do you feel that you have to contribute only in a superior sort of way!"

N(48): "Is that what you think of me too?"

G(82): "Well that's what you said, at least that's the impression I got, maybe I misunderstood you."

R(89): "I think you get the impression when you said that you don't see where your comments would be useful to the group, you know, giving them, I think that's where we got that impression."

N(48): "Well, I don't know, maybe some people in this group talk a lot, I have my friends outside this group, and normally I talk a lot, when I'm with people I don't know, I don't talk at all no matter who they are, whether I think it's the Queen of England or a page, I don't care who they are, because I don't come in and tell all my personal problems and go on and on and on, doesn't mean I feel superior."

J(80): "No one here has ever brought any of their personal problems."

N(48): "What I want is to sit back and look at everybody and oh, but what am I going to do, if I felt I had something that would be useful to anybody else, or if I had something I wanted to say, fine I'd say it but a lot of things I disagreed here with other people, I know why I disagreed, I know personal reasons why when people talk about certain subjects, why I don't like it, but I don't expect other people to understand why I don't want to get really personal, and that I don't want to do."

P(1): "So you are relying, that you think that whatever your opinion is the only opinion and you're not going to change."

N(48): "I'm not saying that at all."

G(82): "No, I don't think so at all. I think I understand you."

N(48): "But because somebody's not active they're supposed to be superior, because they don't talk a lot."

(d) Diaries: The diary characterizes N(48) as rather manipulative and critical of others. Mostly the material is impersonal and loaded with intellectual, or diagnostic impressions of group performance.

N(48) SAT₁ Session 12

"For weeks during these sessions I've expected P(1), and maybe another to come forth with a comment concerning my silence. I felt it has irritated P(1) since day one but I did expect her to speak before now. It probably seems quite silly to say I was quite happy (and amused) that she had expressed her thoughts. I think more of her for it; but amused how people interpret silence. (Much to people's dismay it isn't always negative). I don't honestly think I felt hurt or even angered - that could be because I'm not at all emotionally attached to each or any individual concerned, although I do feel somewhat involved in the group.

In summary N(48), the only high interactor who receives the NB rating, seems unco-operative, irresponsible and self-contained. She feels little appreciation for others who work toward group solutions but is resigned to a silent skepticism and personal amusement. Her feelings are kept from the group except when it is necessary to be negative enough to keep others from getting too informal with her. The result is extreme curiosity and interest on the part of others towards her. The behaviour of N(48) illustrates the use of silence as a controlling mechanism in the group. For the small amount of actual verbal time taken up by N(48) her impact on the group is surprising. The use of manipulative silence and the refusal to make available any "hidden" resources is a source of constant irritation to others. The best descriptive term for this NB member might be "insular deviant."

Bales' expected group performance for NB role type is provided here.

NB: "Toward Rejection of Social Conformity"

Autonomous and resistant to authority, but unfriendly to others in general. Not actively rebellious nor submissive. Evasive, stubborn, obstinate, cynical, and radically non-conforming. Pessimistic about people. Denies admiration for anybody and is sensitive to threats of domination. (Bales, 1970, p. 297)

This completes comparative analysis of the eight "role types" which have been distributed among the high interactors in all four treatment groups. If all members of the groups had been considered there would have been many more "types." The limitations of time and space, inhibited the description of all group members.

The fact that there are eight different roles of 27 possibilities among the high interactors, and of which only six are shared by each treatment, is not entirely surprising. It could be expected that downward directionality would not appear in the profiles of highly verbal members. The lack of downward "types" reduced the possibilities a great deal. There is still a great deal of variability within the eight types who do appear. All emotional emphases are present. All task concerns are represented.

The final analysis of the eight types resulted in a list of descriptive terms which were introduced to provide a "quick summary" of each type of performance. The list is presented below:

<u>DESCRIPTIVE TERM</u>	<u>BALES' TYPE</u>
Manipulative Politician	UPF
Shrewd Businessman	UF
Resident Cynic	UNB
Party Host	PF
Disenchanted Contender	UNF
Ascendent Extrovert	U
Popular Contender	UP
Insular Deviant	NB

Another result of the analysis of these eight major and minor group roles for high interactors was the accurate comparisons made with R.F. Bales hypothesized group performances for such members. In almost every instance his expectations were corroborated. In the few instances where discrepancies occurred, the similarities frequently outweighed such differences.

An examination of high interaction and group learning

Four tests were used to determine the nature of the learning which had taken place in these treatment groups. These were particular tests designed for each treatment. The Human Relations Video-tape Test of Empathic Understanding (H.R.V.T.) was developed by J. Park and W. Matheson. The test was designed to measure the amount and direction of learning on the construct of empathy. It was the learning of empathy which formed the framework of the DCM treatment. Another test which was also used to examine DCM group learning was the Carkhuff Discrimination Test.

McLeish, Park and this author also developed the Group Process Analysis Test. It is a video-tape test used to measure the understanding of ongoing group dynamics. It was the major outcome measure for the SAT treatment. A full discussion of all of these instruments and the complete results of the learning outcomes for all participants is

available in Park (1971). For the purposes of this thesis it will be enough to report only the gain, or loss for our high interactors on these post-test outcome measures.

In addition an investigation was made on the relationship between specific s.p.d.'s and resultant outcome learning. Tables 37 and 38 provide the results of the post tests for high interactors in all four treatment groups.

A preliminary exploration of the learning outcome results should be prefaced by an understanding that the DCM group should be expected to gain only on the first three outcome measures reported in these tables. These outcome measures on which DCM gain is expected are H.R.V.T. multiple choice, H.R.V.T. free response, and Carkhuff Discrimination Test. The SAT treatment participants were not expected to gain on these three tests, other than by test-retest learning, but were expected to increase their scores on the fourth, or G.P.A.T. test.

An examination of Tables 37 and 38 shows that, in general, the high interactors in the DCM group showed gains on all three of these specific outcome measures. In addition there were a number of individuals who increased their scores on the G.P.A.T. This was a beneficial but somewhat unsuspected result of the DCM treatment. An explanation is provided by Park, 1971.

For the SAT treatment the results for the G.P.A.T. are disappointing. Less than half of the high interactors give

TABLE 37

Results of Post-tests on group learning

		H.R.V.T. Mult. Choice	H.R.V.T. Free Response	Carkhuff Discrimination	G.P.A.T.
SAT ₁					
J(3)	UPF	G	G	G	L
L(40)	UPF	G	G	G	L
M(66)	UPF	G	G	L	G
G(63)	UNB	G	G	G	G
K(2)	PF	L	Even	G	L
E(29)	UNF	G	G	L	L
B(30)	UP	G	G	G	L
SAT ₂					
R(89)	UPF	G	G	Even	L
D(42)	UPF	Even	G	G	L
J(80)	U	G	L	G	G
L(92)	U	G	G	L	G
P(1)	UB	G	G	G	G
N(48)	NB	Even	G	G	L

G = gain

L = loss

Even - no change

TABLE 38

Results of Post-tests on group learning

		H.R.V.T. Mult. Choice	H.R.V.T. Free Response	Corkhuff Discrimination	G.P.A.T.
DCM ₁					
B(81)	UPF	G	G	G	G
M(94)	UPF	G	G	G	G
C(44)	UF	Even	G	G	L
T(25)	UF	G	G	G	L
M(32)	UNB	G	G	L	L
F(20)	PF	G	G	G	G
DCM ₂					
B(23)	UPF	G	G	G	G
K(90)	UF	Even	G	G	G
D(73)	UNB	G	G	G	L
G(64)	PF	G	G	G	L
Da(87)	U	G	G	G	G
A(82)	UNF	G	G	G	G

G = gain

L = loss

Even - no change

evidence of increased scores on this outcome measure. Although this result is discouraging it can be explained in terms of the test itself and the peculiarity of the treatment. A full discussion of the conflicting findings of the G.P.A.T. is made available by Park, 1971. In the case of the three outcome measures designed for the DCM treatment but administered as pre-post for the SAT the findings are as expected. There is a general tendency to score higher than pretest measures on these tests but to score significantly less than the DCM. An examination of the average gains across the four treatment groups (Park, 1971) would show clearly that the DCM group performance was significantly superior to the SAT group performance on the H.R.V.T. and Carkhuff tests.

When looking at the comparison of specific s.p.d.'s and learning there is a peculiar but understandable relationship between the P-N dimension and the learning demonstrated by these high interactors. Within the SAT treatment there are particular demands placed upon the group members. It is relatively easy to adopt an unco-operative, negative stance with respect to the leader and his arbitrary task assignment. It is not so easy to retain a positive and co-operative attitude towards the experience itself or a positive attitude toward the other group members in such a situation. It requires a considerable amount of work and invested energy to present and retain a positive

picture of self and others. The members who are PF, UP or UPF were found to be the "types" who perform the functions of instilling positive feelings, working co-operatively, denying negativism, looking for the good in others. In an earlier section of this thesis it was mentioned that the nature of the task in the group becomes a crucial factor in defining acceptable behaviour by other members (p. 72). Burke (1967) has termed his behaviour which is unacceptable under certain task conditions as behaviour which does not have "task legitimation". In the SAT treatment it is the very positive individuals who are under pressure to reorganize their perceptions of the group situation. They are often considered by the other members as being unrealistic, and not perceiving the true nature of the trainer and his manipulative ways. To maintain their present perceptions, the more positively oriented members are continually in a state of tension. A positive approach is not conducive to learning in SAT. Such positive members are continually placed in a defensive stance by the negative members. In addition, the role of the trainer gives these negative members some evidence of what they consider the "truth" about this group experience.

In the DCM group it is "legitimate" to behave positively. It is practically a requirement of the task. It is the negative, anti-task, and cynical members who are made

to feel uncomfortable and defensive about their opinions. The trainer is prepared to make them defend any contradictions, and the other members, who most often have a positive identification with the trainer, will continue along very similar lines in dealing with this deviance.

With respect to the P-N dimension and high interactor learning, it could be expected that the Positive individuals in the SAT groups would learn less about human behaviour as it occurs around them than the Negative members. Conversely the DCM positive members would score higher on outcome learning than would the negative members in their groups.

The tables for the SAT groups indicate that only one of seven highly interactive members, who were either UP, UPF, PF, showed a gain on the G.P.A.T. test. It is also true, however, that only one of three negative members of the SAT groups showed a gain on the G.P.A.T.

For the DCM groups there was only one member of four who were UPF, PF who did not show a gain on the G.P.A.T. while two of the three negative members showed losses on this test.

It seems hard to discern any other trends across the s.p.d's when relating them to group learning. The positive-negative material which occurs in many of the group "types" seems to be a confounding influence in many of the relationships which might be expected to exist.

CHAPTER 7

SUMMARY, CONCLUSIONS AND IMPLICATIONS OF THE RESEARCH

Review of the investigation

This study had one specific purpose. It was designed to examine the conceptions of group development as postulated by R.F. Bales. It was also concerned with establishing the concept of "three-dimensional group space" as a meaningful and viable approach to an understanding of the structure of the small group.

The study demonstrated that it was possible to make use of the "group space" concept using three group analytic techniques. These three techniques were IPA, questionnaire and sociogram. It was further demonstrated that an understanding of the "role types" which occur in the natural development of the group, is aided by this "group space" concept.

Results of the investigation

The theoretical approach to the understanding of small group development, as outlined by R.F. Bales, was reduced to the (a) phase (b) equilibrium (c) role development and (d) overall phase movement hypotheses. In the tests of these various hypothesis there were some conflicting findings. In general however, the results support the

group development formulations of Bales. Specifically, four hypotheses derived from these formulation were tested.

With respect to the phase hypothesis the results are in basic agreement for two of the four treatment groups.

Results for Direct Communications Method supports the concept of expected "nesting phases" more so than results of the Self Analytic Treatment. Various explanations might be provided to explain these results. The most obvious explanation concerns the differences in the group treatments themselves. The self analytic groups were not the usual type of task group. Although they were given the task to "observe and understand human behaviour as it happens" the role of the trainer was such that it confounded member expectations and hampered the natural occurrence of the phase of problem solving. In the Direct Communications Group Method the task and role of the trainer corresponded to member expectations. There seemed to be no barriers to the unfolding of group development as there might have been in the self-analytic groups. The results of the different nature of the treatments and the opposing styles adopted by the trainers, were that the DCM groups followed the "nesting" pattern while the SAT groups did not. The SAT groups recorded uncommonly high social-emotional activity rates on IPA, from the onset of the experience until its termination. This is evidence for their high anxiety and uneasy approach to the task. The inability of

the group membership in both SAT groups to get down to any work toward the task is evidence of the imbalance of these task-social-emotional activity rates.

It appears that it is not so much a negative impression of the trainer which can upset the natural occurrence of phases, than the "expectancy shock" of the trainer's initial behaviour (which never altered) in the SAT group. This expectancy shock, combined with the uncomfortable nature of the task, were the two factors which combined to alter the phase movements in SAT groups. This seems to be the case because even though the members of the SAT groups demonstrated initial negative reactions toward the trainer, they still were not able to get down to the task after these negative reactions had died down or had been replaced with positive reactions for some members. Additionally, there is evidence of a strong negative reaction to the trainer in the DCM group; but it did not significantly alter the phase movements. The DCM groups did not experience any "expectancy shock" nor did the nature of the task cause any unnecessary upset.

With respect to the "equilibrium" hypothesis formulated by Bales, there is supportive evidence. When the sixty sessions of all four treatment groups were combined and the indices of task and social-emotional behaviour were compared; the correlations, in the major instance, proved statistically significant.

There is a tendency for the onset of a problem culture to produce an unbalanced condition in the group. Such

inequality of interaction in favour of task activity, as determined by the onset of this problem culture, brings on requirements for more social-emotional activity, and a higher rate of positive-negative activity, to restore the task-emotional balance. Otherwise there is an increase in expressive, anti-task deviant behaviour. Although this hypothesis of group "equilibrium" was initially formulated for single sessions,* it appears to hold true over the group life span.

The role differentiation hypothesis of Bales has also been accepted. When the fluctuations in the status of the high interactors were compared with the major phase movements of each respective group, there was an obvious tendency for particularly significant individuals to appear at peak times in the life of the group. Initially the membership was divided between emotionality (P-N) and task oriented behaviour (F-B). Each group with a representative positive or negative member who adopted a characteristic stance on this affective dichotomy. Eventually, as the group became more sophisticated, the roles became more diffuse and situation-specific. What is meant here is that as each group encountered problems specific to its own development there were various members who became influential for a short time and then faded. Their status

* R.F. Bales, Personal Communication, September 1971.

might reach another peak at a later point, or they may be replaced completely by other members. In any case they perform a necessary function for the group either for the full life of the group, or for a short and vital period.

The overall phase movement hypotheses received less than complete acceptance. Bales (1950) and Dunphy (1968) found that within a three factor space the task group would move predictably across sessions. The three factor space movement should occur in line with the particular phases encountered in the problem solving activity of the task group (p.92-3).

In the case of the four treatment groups here there was considerably less directional movement than expected. The SAT groups remained very stable after their introductory meetings. Although there was slight movement in certain directions within each of the three session phases, the overall group locations did not alter. For example the SAT₁ group remained in an UNF space throughout their fifteen sessions. Even though they might have become more negative, or more forward in a particular phase, they still remained in UNF space. For SAT₂ this is also true. The only distinction was that it was in UPF rather than UNF space.

For the DCM groups the major fluctuation was on the P-N dimension. (Although they both adopted UPF-UNF directionality which altered only in terms of the amount of positive or negative quality at a given period.) The DCM₁ group appeared

to have more stability than DCM₂. In the case of DCM₁ there was a steady progression from an initial negativism towards a more positive group direction. The DCM₂ seemed to bounce alternately between positive and negative feelings.

It appears that when use is made of IPA to determine the overall group directionality across phases there is somewhat limited movement. There is much less movement than might be expected. The fact that all groups began in UNF space rather than UPF space seems to represent an initial negative reaction, either to trainer or treatment or both. The lack of any movement on the U-D and F-B directions, which

might have been expected from the Bales and Dunphy models, indicates that the groups were much less concerned with status struggles or with determining their task performance, and were more concerned with developing, managing, or altering their personal relationships.

In the DCM groups this could be understood insofar as these group members continually referred to their treatment as a form of "sensitivity training" and they also continually discussed "encounter groups" and disclosing information about themselves as a requirement of their present group membership. Although this was not the defined task it was adopted as the hidden agenda for the DCM groups. Such a false premise might explain why there was a predominant concern for emotionality in these groups and less movement on U-D, F-B directions.

For the SAT groups, the nature of the task and role of the trainer have already been identified as elements which caused emotional upheaval. The SAT group members continual concern with feelings, and their lack of overall movement on U-D, F-B could be considered in this regard.

Three-dimensional Group Space

The concept of a three dimensional group space has proven to be a viable and meaningful development in the understanding of group structure. It is one of the best available techniques for determining overall group movements and group role "types". In addition the descriptions of these "types", provided by Bales (1970), lend credence and clarity to these roles so that a composite picture of group development and personality can be readily compiled.

The three-dimensional "group space" concept was examined, in this investigation, with three different techniques. In the first instance use was made of Interaction Process Analysis. Since the IPA is determined from actual group interaction, and not by a more subjective response to questionnaire or some other less objective technique, it was taken as the standard and most reliable measure of group "reality". The social psychological directions (s.p.d.'s) arrived at through the IPA, for both the overall group and for significant high interactors, were then used as basis for comparison.

The IPA scoring procedure used to determine the s.p.d.'s was found to have inadequacies. These were outlined earlier. Such inadequacies did not outweigh the group scoring benefits of IPA. Similarly it was determined that the Questionnaire and sociogram methods of arriving at the s.p.d.'s had inadequacies. These also were elaborated upon earlier.

When comparisons were completed among the three s.p.d. scoring approaches it was found that there was a remarkable similarity across the evaluations for the high interacting members when all the special aspects of each scoring procedure were taken into consideration.

Final group space locations were determined for the high interactors from a composite analyses of all three techniques. After these group space locations were determined the actual group performance of each of these high interactors was examined through IPA, sociogram, group dialogue, and diary information. The results indicated that there were eight role "types". Of the eight role "types", six were common to both treatments and three were common to every group in each treatment. Extensive delineation of each of the group performances of the high interactors made possible the following: (a) capsule descriptive terms appropriate to each role "type", and (b) comparisons with the theoretical "expected group performances" for such role types as formulated by R.F. Bales.

The results of this analysis gave considerable support to the contentions of Bales regarding these role types.

As a final step the relationship between the particular type of group personality and the individual outcome learnings were compared. The preliminary results indicate that location of group member on the P-N dimension of group space, when considered within the nature of the task, seems to play an important part in group learning.

General Conclusion

This research has simply scratched the surface of a number of important issues. The limitations of time and temperament are somewhat obvious. The phase, equilibrium, role differentiation, and overall phase movement hypotheses are not the only ones which could have been examined. They were simply deemed the most vital in establishing the Bales IPA system and its subsequent theoretical perspectives. They seemed acceptable and valid approaches to examining group structure. Other research workers might be curious to survey the individual communication patterns, or the effects of group structure on individual learning. Recognizing the importance of such research the authors only excuse for not dealing with them is that his project is part of a larger plan to look at groups in as much detail as possible. (McLeish and Park, 1971; Park 1971)

Reasons have been provided for the choice of high interactors. They form only part of the group membership. The low interactors deserve consideration as well. It was simply beyond the scope of the present writer to report on the careers of all the group members. A similar statement must be made about the need to consider the observers of these groups in some detail. Comparisons of high and low interactors in relation to "group personality", or "group learning" would be exciting. A comparison of the group structures in the observation room and those of the participant groups would also be valuable. Still further, the examination of the perceptual differences between observers and participants on the structure of the participant groups would throw light on the ability of observers to be "accurate" or "objective" in their perceptions of the group reality as it is determined by IPA. This gives an appreciation of the limitations of this study. Recognizing the limitations is, of course, only part of the answer. The remaining part is to proceed to eliminate such limitations or to point the way towards their elimination by others. In this regard, it is hoped that this research has been helpful, since the development of these approaches to understanding small group structure can be considered rather crude, being still in the development stage. The analysis of the structures of human social

systems, such as the small group, requires a synthetic as well as an analytic method. Research on the small group must be done piecemeal (as this study has been) but some attempt should be made at the same time both comprehensive and definitive. The experimental design here used adds, or seeks to add, this dimension.

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APPENDIX A

Interpersonal Ratings Questionnaire Form A

		If	Key
1.	Does he (or she) seem to <u>receive a lot of interaction</u> from others?	Yes	U
2.	Does he seem <u>personally involved in the group</u> ?	Yes	UP
3.	Does he seem <u>valuable for a logical task</u> ?	Yes	UPF
4.	Does he <u>assume responsibility for task leadership</u> ?	Yes	UF
5.	Does he <u>speak like an autocratic authority</u> ?	Yes	UNF
6.	Does he seem <u>dominating</u> ?	Yes	UN
7.	Does he seem to demand <u>pleasure and gratification</u> ?	Yes	UNB
8.	Does he seem to <u>think of himself as entertaining</u> ?	Yes	UB
9.	Does he seem <u>warm and personal</u> ?	Yes	UPB
10.	Does he <u>arouse your admiration</u> ?	Yes	P
11.	Does he seem especially to be <u>addressed when others have serious opinions</u> about which they want confirmation?	Yes	PF
12.	Does he seem to stand for the most <u>conservative ideas and beliefs of the group</u> ?	Yes	F
13.	Does he always seem to try to speak <u>objectively</u> ?	Yes	NF
14.	Does he seem to feel that his <u>individual independence</u> is very important?	Yes	N
15.	Does he seem to <u>feel that others are generally too conforming to conventional social expectations</u> ?	Yes	NB
16.	Does he seem to <u>reject religious belief generally</u> ?	Yes	P
17.	Do you feel <u>liking</u> for him or her?	Yes	PB
18.	Does he seem to <u>make others feel he admires them</u> ?	Yes	DP
19.	Does he seem to believe that <u>equality and humanitarian concern for others is important</u> ?	Yes	DPF
20.	Does he seem very <u>introverted</u> , serious shy, introspective?	Yes	DF
21.	Does he seem to believe that it is necessary to <u>sacrifice the self for higher values</u> ?	Yes	DNF
22.	Does he seem <u>resentful</u> ?	Yes	DN
23.	Does he seem to accept <u>failure and withdrawal</u> for himself?	Yes	DNB
24.	Does he seem to <u>withhold cooperation</u> passively?	Yes	DB
25.	Does he seem to <u>identify with some group of underprivileged persons</u> ?	Yes	DPB
26.	Does he tend to <u>devalue</u> himself?	Yes	D

APPENDIX B

APPENDIX B

Simple Difference Method for Calculating s.p.d.'s

ACTS INITIATED: Diagnostic Questions and Inferences

Diagnostic Questions:

Inferred Directional Components:

1. SEEMS FRIENDLY: Does he initiate more acts in which he seems friendly to others than he receives from them? If YES=(UP)
2. JOKES: Does he initiate more acts of joking to others than he receives from them? If YES=(UB)
3. AGREES: Does he initiate more acts of agreement to others than he receives from them? If YES=(PF)
4. GIVES SUGGESTION: Does he initiate more acts of giving suggestion to others than he receives from them? If YES=(UF)
5. GIVES OPINION: Does he initiate more acts of giving opinion to others than he receives from them? If YES=(F)
6. GIVES INFORMATION: Does he initiate more acts of giving information to others than he receives from them? If YES=(D)
7. ASKS FOR INFORMATION: Does he initiate more acts of asking for information than he receives from others? If YES=(UP)
8. ASKS FOR OPINION: Does he initiate more acts of asking for opinion than he receives from others? If YES=(P)
9. ASKS FOR SUGGESTION: Does he initiate more acts of asking for suggestion than he receives from others? If YES=(DF)
10. DISAGREES: Does he initiate more acts of disagreement to others than he receives from them? If YES=(N)
11. LAUGHS: Does he initiate more laughs toward others than he receives from them? If YES=(DB)
12. SEEMS NEGATIVE: Does he initiate more acts in which he seems negative to others than he receives from them? If YES=(UN)

ACTS RECEIVED: Diagnostic Questions and Inferences

Diagnostic Questions:

Inferred Directional Components:

1. FRIENDLY ACTS: Does he receive more acts in which others seem friendly to him than he gives to them? If YES=(UP)
2. JOKES: Does he receive more acts in which others joke with him than he gives to them? If YES=(UB)
3. AGREEMENT: Does he receive more acts in which others agree with him than he gives to them? If YES=(F)
4. SUGGESTIONS: Does he receive more acts in which others give suggestions to him than he gives to them? If YES=(UPF)
5. OPINIONS: Does he receive more acts in which others give opinions to him than he gives to them? If YES=(UF)
6. INFORMATION: Does he receive more acts in which others give information to him than he gives to them? If YES=(P)
7. REQUESTS FOR INFORMATION: Does he receive more acts in which others ask for information than he gives to them? If YES=(UNB)
8. REQUESTIONS FOR SUGGESTION: Does he receive more acts in which others ask for suggestion than he gives to them? If YES=(UNF)
9. REQUESTS FOR SUGGESTION: Does he receive more acts in which others ask for suggestion than he gives to them? If YES=(UF)
10. DISAGREEMENT: Does he receive more acts in which others disagree with him than he gives to them? If YES=(UNF)
11. LAUGHTER: Does he receive more acts in which others laugh in response to him than he gives to them? If YES=(UN)
12. NEGATIVE ACTS: Does he receive more acts in which others seem negative toward him than he gives to them? If YES=(UNF)

Test of Significance

For Each Value of the Observed Larger Number the Table shows the Value of the Observed Smaller Number At or Below Which the Diagnostic Question may be Answered "YES": (The larger number is shown first)

1-(ignore)	41-32	81-68	121-106	161-143
2-(ignore)	42-32	82-69	122-107	162-144
3-1	43-33	83-70	123-108	163-145
4-1	44-34	84-71	124-109	164-146
5-2	45-35	85-72	125-110	165-147
6-2	46-36	86-72	126-111	166-148
7-3	47-37	87-73	127-112	167-149
8-4	48-38	88-74	128-113	168-150
9-5	49-39	89-75	129-114	169-151
10-6	50-40	90-76	130-115	170-152
11-6	51-41	91-77	131-115	171-153
12-7	52-42	92-78	132-116	172-154
13-8	53-43	93-79	133-117	173-155
14-8	54-44	94-80	134-118	174-156
15-9	55-44	95-81	135-119	175-157
16-10	56-45	96-82	136-120	176-158
17-11	57-46	97-83	137-121	177-159
18-12	58-47	98-84	138-122	178-160
19-13	59-48	99-84	139-123	179-161
20-13	60-49	100-85	140-124	180-161
21-14	61-50	101-86	141-125	181-162
22-15	62-50	102-87	142-126	182-163
23-16	63-51	103-88	143-127	183-164
24-17	64-52	104-89	144-127	184-165
25-17	65-53	105-90	145-128	185-166
26-18	66-54	106-91	146-129	186-167
27-19	67-55	107-92	147-130	187-168
28-20	68-56	108-93	148-131	188-169
29-21	69-57	109-94	149-131	189-170
30-22	70-58	110-95	150-132	190-171
31-23	71-59	111-96	151-133	191-172
32-24	72-60	112-97	152-134	192-173
33-25	73-60	113-98	153-135	193-174
34-25	74-61	114-99	154-136	194-175
35-26	75-62	115-100	155-137	195-176
36-27	76-63	116-101	156-138	196-177
37-28	77-64	117-102	157-139	197-178
38-29	78-65	118-103	158-140	198-179
39-30	79-66	119-104	159-141	199-180
40-31	80-67	120-105	160-142	200-181

APPENDIX C

Appendix C

Factor Analysis of the Interpersonal Ratings Questionnaire

Bales contention is that the Interpersonal Ratings Questionnaire measures the three distinct dimensions of group performance. It is his further contention that each of the items on the questionnaire accurately encompasses a particular co-ordinate in such a three dimensional space.

If this is a valid contention it would be expected that a factor analysis of the questionnaire should turn up three main factors. Additionally the factor analysis should show that each particular item on the questionnaire is "loaded" heavily on one, two, or all three of these factors depending upon its co-ordinate location on one, two, or all the dimensions.

The questionnaire was administered on six different occasions. These administrations occurred after the second, fourth, seventh, tenth, thirteenth, and fifteenth meetings of the groups. The total number of responses on each occasion were 1186, 1194, 1219, 1200, 1207, 1196 with an overall total response of 7202.

After each administration of the questionnaire a factor analysis was conducted. In addition the total responses were factor analysed. The results of the unrotated factor analysis are presented as Tables 39-45.

Results of the unrotated factor matrices indicate that there are four main factors which occur consistently across all seven major factor analyses; or on each of the six analysis of individual sessions and on the overall analysis.

The first factor on every occasion corresponds almost identically with the upward-downward (Power) dimension of group space. Almost

every questionnaire item which is keyed upward has a high positive loading on this first factor while almost every questionnaire item which is keyed downward has a high negative loading on this first factor.

The second factor corresponds to the positive-negative (affective) dimension of group space and the questionnaire items are again in almost complete agreement. The third factor is very hard to interpret but seems to be a social desirability factor.

The fourth factor corresponds to the forward-backward (task) dimension of group space. Again the questionnaire items are in very substantial agreement.

The eigenvalues show that the greater part of the variance of the questionnaire is accounted for by the first factor, or power dimension. The questionnaire, while discriminating across the items, and demonstrating that the three dimensions of group space are manifest in the questionnaire, gives precedence to the dimension of power as the most influential force determining the direction of responses.

An examination of the unrotated factor matrices of session 2, 4, 7, 10, 13, 15 as well as the overall analysis show remarkable similarity with Bates' expectations. Many items are exactly as expected. Others are only slightly discrepant. There are very few items indeed whose loadings are not in the expected magnitude and even fewer items whose loadings are in the opposite from the expected direction.

It might be best to illustrate the discrepant items.

Item 12 has been keyed as Forward. In reality it received downward and slightly positive loadings although the positive loading disappears over repeated uses of the questionnaire.

Item 13 is keyed NF, but recieves P material throughout.

Items 18,19 are keyed DP,DPF but always have U loadings.

Item 20 is keyed DF but never recieves F loadings.

Item 21 is keyed DNF but initially has a U loading.

Item 23 is keyed DNB but has some P material.

Item 25 is keyed DPB but is initially F until the last part of the group evaluation where it becomes B.

Included in the factor analysis is a graphic plot of the 3-dimensional location of the items in group space. Bales' expected co-ordinates are provided below, with the forward-backward dimension printed in because of the two-dimensional aspects of the printed page. The factored item co-ordinates from each of the six separate factor analyses as well as the overall analysis are then indicated as Figure 33-39.

Expected Bales Co-ordinates for " Interpersonal Ratings Questionnaire

Using Upward-Negative Space.

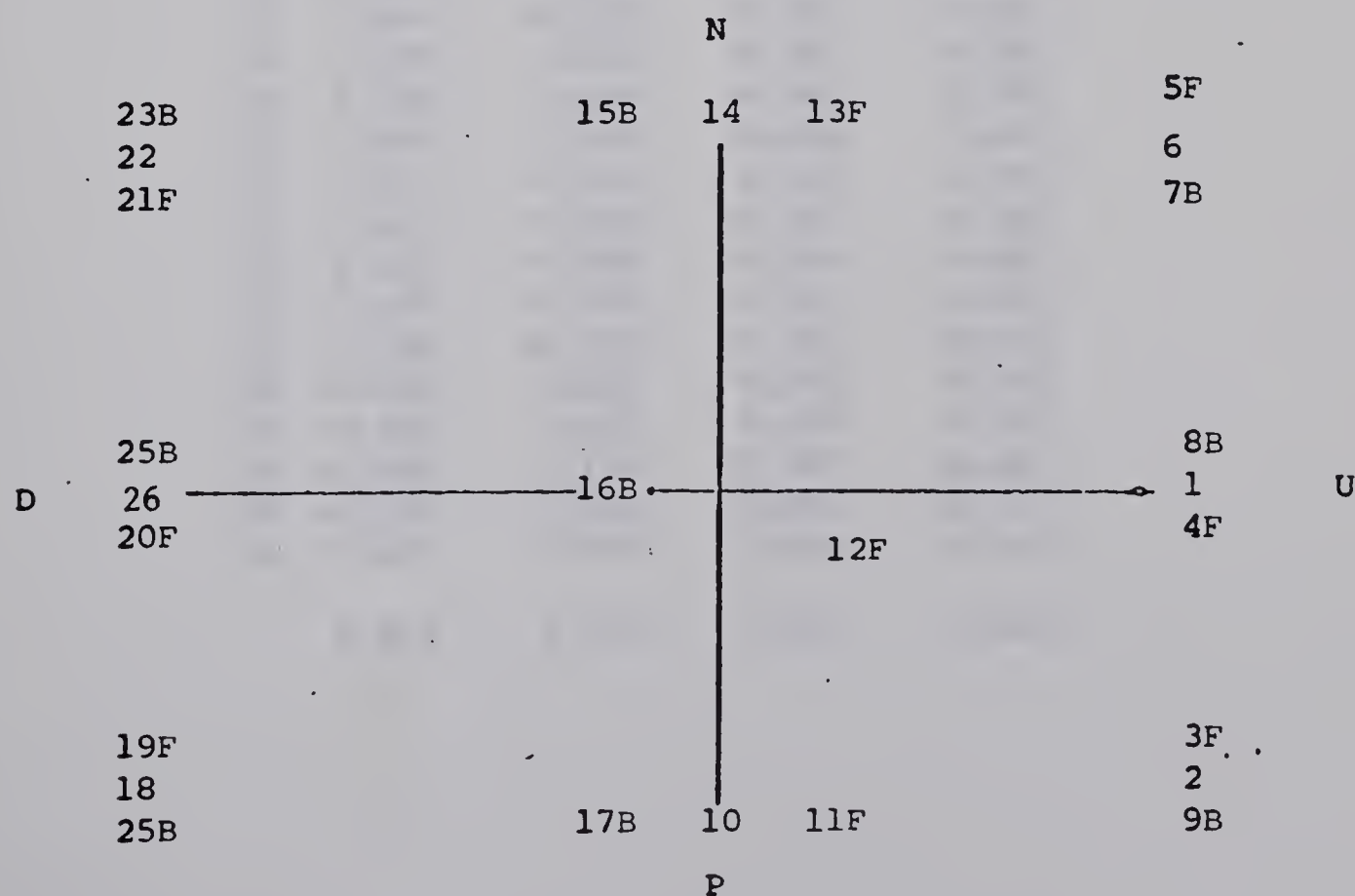


TABLE 39

Unrotated Factor Matrix of Interpersonal Ratings
 Questionnaire Using Total Responses after Six
 Administrations
 (n = 7202)

	1	2	3	4
1	0.882	0.202	0.017	0.030
2	0.883	-0.145	-0.035	0.048
3	0.784	-0.224	-0.044	-0.205
4	0.849	0.198	-0.002	-0.210
5	0.402	0.733	-0.027	-0.387
6	0.514	0.766	-0.019	-0.177
7	0.332	0.648	0.195	0.353
8	0.401	0.630	0.157	0.412
9	0.590	-0.569	0.143	0.288
10	0.709	-0.367	0.279	0.029
11	0.781	0.020	0.185	-0.222
12	-0.312	-0.114	0.433	-0.449
13	0.147	-0.228	0.091	-0.669
14	0.279	0.243	0.150	-0.090
15	0.428	0.436	0.262	0.145
16	0.284	0.465	0.428	0.045
17	0.613	-0.576	0.147	0.239
18	0.422	-0.466	0.484	0.200
19	0.476	-0.559	0.355	-0.089
20	-0.808	-0.189	0.303	-0.025
21	0.258	-0.112	0.564	-0.062
22	-0.240	0.652	0.303	0.020
23	-0.587	0.070	0.498	0.120
24	-0.689	0.150	0.367	-0.067
25	-0.137	0.028	0.802	-0.171
26	-0.442	0.019	0.614	0.140
	8.103	4.444	2.954	1.556

TABLE 40

Unrotated Ractor Matrix of Interpersonal Ratings

Questionnaire after Session 2

(N = 1186)

	1	2	3	4
1	0.870	0.132	0.090	0.026
2	0.897	-0.160	-0.014	0.096
3	0.718	-0.237	-0.030	-0.251
4	0.870	0.127	-0.027	-0.159
5	0.424	0.733	0.071	-0.380
6	0.536	0.771	0.022	-0.109
7	0.462	0.481	0.284	0.380
8	0.611	0.474	0.135	0.436
9	0.563	-0.608	0.035	0.312
10	0.698	-0.419	0.204	-0.008
11	0.780	0.034	0.116	-0.265
12	-0.335	-0.236	0.446	-0.337
13	0.096	-0.131	0.186	-0.626
14	0.328	0.216	0.161	-0.206
15	0.474	0.417	0.286	0.100
16	0.259	0.485	0.372	0.278
17	0.541	-0.622	0.060	0.180
18	0.545	-0.505	0.348	-0.216
19	0.488	-0.612	0.200	0.120
20	-0.850	-0.183	0.264	-0.072
21	0.238	-0.301	0.468	-0.131
22	-0.208	0.576	0.566	0.064
23	-0.588	0.029	0.417	0.156
24	-0.744	0.153	0.319	-0.013
25	0.015	-0.208	0.782	-0.136
26	-0.470	-0.101	0.638	0.159
	8.592	4.329	2.719	1.579

TABLE 41

Unrotated Factor Matrix of Interpersonal Ratings

Questionnaire after Session 4

(N - 1194)

	1	2	3	4
1	0.896	0.238	0.073	0.080
2	0.897	-0.111	-0.091	0.033
3	0.765	-0.165	-0.008	-0.208
4	0.842	0.179	-0.077	-0.096
5	0.397	0.764	-0.057	-0.432
6	0.493	0.768	-0.069	-0.233
7	0.326	0.637	0.292	0.368
8	0.407	0.621	0.199	0.427
9	0.633	-0.560	0.199	0.277
10	0.712	-0.336	0.306	0.003
11	0.778	0.002	0.133	-0.267
12	-0.334	-0.060	0.393	-0.428
13	0.148	-0.258	0.091	-0.597
14	0.322	0.295	-0.030	0.033
15	0.441	0.420	0.198	0.151
16	0.162	0.464	0.510	-0.083
17	0.652	-0.565	0.223	0.199
18	0.420	-0.469	0.491	0.155
19	0.471	-0.484	0.383	-0.093
20	-0.847	-0.156	0.229	-0.086
21	0.179	-0.109	0.520	-0.228
22	-0.293	0.677	0.272	0.041
23	-0.574	0.050	0.466	0.236
24	-0.723	0.092	0.297	-0.065
25	-0.178	0.099	0.699	-0.322
26	-0.420	0.083	0.636	0.231
	8.263	4.365	2.800	1.687

TABLE 42

Unrotated Factor Matrix of Interpersonal Ratings

Questionnaire after Session 7

(n = 1219)

	1	2	3	4
1	0.875	0.214	0.020	-0.059
2	0.895	-0.143	-0.000	-0.037
3	0.812	-0.210	-0.056	-0.108
4	0.847	0.206	0.036	-0.238
5	0.353	0.712	-0.050	-0.451
6	0.520	0.738	-0.054	-0.242
7	0.257	0.698	0.168	0.162
8	0.299	0.758	0.036	0.232
9	0.638	-0.501	0.184	0.251
10	0.739	-0.306	0.313	0.138
11	0.745	0.027	0.216	-0.245
12	-0.366	-0.178	0.424	-0.612
13	0.132	-0.224	0.013	-0.424
14	0.233	0.348	0.240	0.304
15	0.276	0.601	0.316	0.338
16	0.159	0.588	0.343	0.047
17	0.664	-0.459	0.156	0.319
18	0.488	-0.361	0.466	0.175
19	0.519	-0.575	0.406	-0.000
20	-0.807	-0.218	0.217	0.038
21	0.282	-0.073	0.583	-0.124
22	-0.327	0.631	0.276	0.110
23	-0.636	0.038	0.455	0.092
24	-0.714	0.132	0.345	0.144
25	-0.257	0.024	0.771	-0.232
26	-0.447	-0.002	0.605	-0.076
	8.278	4.664	2.830	1.571

TABLE 43

Unrotated Factor Matrix of Interpersonal Ratings

Questionnaire after Session 10

(N = 1200)

	1	2	3	4
1	0.891	0.168	-0.002	-0.005
2	0.908	-0.089	-0.066	0.051
3	0.825	-0.208	-0.082	-0.222
4	0.859	0.199	0.042	-0.249
5	0.352	0.759	-0.008	-0.336
6	0.466	0.799	0.057	-0.123
7	0.336	0.686	0.170	0.326
8	0.359	0.644	0.190	0.405
9	0.591	-0.539	0.132	0.360
10	0.693	-0.394	0.287	-0.021
11	0.773	-0.014	0.191	-0.292
12	-0.322	-0.173	0.357	-0.397
13	0.104	-0.244	-0.106	-0.597
14	0.248	0.211	0.152	-0.371
15	0.486	0.422	0.277	-0.020
16	0.371	0.373	0.405	0.108
17	0.621	-0.612	0.109	0.197
18	0.406	-0.465	0.491	0.231
19	0.510	-0.600	0.318	-0.184
20	-0.808	-0.310	0.274	-0.082
21	0.261	-0.134	0.611	-0.022
22	-0.311	0.645	0.230	0.015
23	-0.574	0.060	0.536	0.003
24	-0.692	0.112	0.314	-0.244
25	-0.217	0.054	0.783	-0.071
26	-0.508	0.016	0.546	0.118
	8.338	4.619	2.772	1.603

TABLE 44

Unrotated Factor Matrix of Interpersonal Ratings

Questionnaire after Session 13

(n = 1207)

	1	2	3	4
1	0.873	0.247	-0.058	0.081
2	0.860	-0.188	-0.046	0.028
3	0.820	-0.218	-0.019	-0.172
4	0.856	0.229	0.038	-0.232
5	0.412	0.708	-0.084	-0.413
6	0.542	0.761	-0.029	-0.175
7	0.292	0.668	0.149	0.396
8	0.359	0.665	0.204	0.358
9	0.566	-0.591	0.142	0.267
10	0.699	-0.358	0.284	0.026
11	0.819	0.029	0.176	-0.065
12	-0.290	-0.058	0.491	-0.393
13	0.189	-0.256	0.183	-0.716
14	0.204	0.234	0.171	-0.129
15	0.475	0.390	0.211	0.050
16	0.377	0.407	0.495	0.033
17	0.645	-0.548	0.152	0.255
18	0.352	-0.503	0.529	0.158
19	0.446	-0.512	0.427	-0.077
20	-0.759	-0.137	0.376	-0.017
21	0.280	-0.034	0.545	0.101
22	-0.166	0.689	0.248	0.140
23	-0.560	0.130	0.586	0.086
24	-0.642	0.228	0.445	-0.113
25	-0.076	0.073	0.848	-0.207
26	-0.402	-0.002	0.627	0.205
	7.909	4.469	3.445	1.572

TABLE 45

Unrotated Factor Matrix of Interpersonal Ratings

Questionnaire after Session 15

(n = 1196)

	1	2	3	4
1	0.878	0.223	0.017	0.128
2	0.824	-0.168	-0.020	0.144
3	0.764	-0.257	-0.045	-0.176
4	0.828	0.236	-0.004	-0.199
5	0.448	0.723	0.036	-0.251
6	0.513	0.775	0.033	-0.095
7	0.298	0.681	0.141	0.371
8	0.329	0.612	0.149	0.533
9	0.549	-0.604	0.093	0.232
10	0.717	-0.391	0.251	0.001
11	0.796	0.036	0.211	-0.102
12	-0.221	-0.050	0.470	-0.249
13	0.230	-0.251	0.167	-0.744
14	0.307	0.144	0.167	-0.354
15	0.407	0.340	0.268	-0.079
16	0.371	0.415	0.483	-0.055
17	0.550	-0.629	0.130	0.211
18	0.325	-0.503	0.479	0.297
19	0.440	-0.601	0.293	-0.128
20	-0.761	-0.188	0.396	-0.054
21	0.278	-0.082	0.546	0.042
22	-0.168	0.629	0.251	-0.125
23	-0.584	0.074	0.496	0.109
24	-0.652	0.113	0.432	-0.179
25	-0.097	-0.007	0.863	-0.028
26	-0.426	0.031	0.631	0.262
	7.572	4.520	3.172	1.698

Figure 33

Item co-ordinates for Interpersonal Ratings Questionnaire, using
Upward-Negative space, after total response.

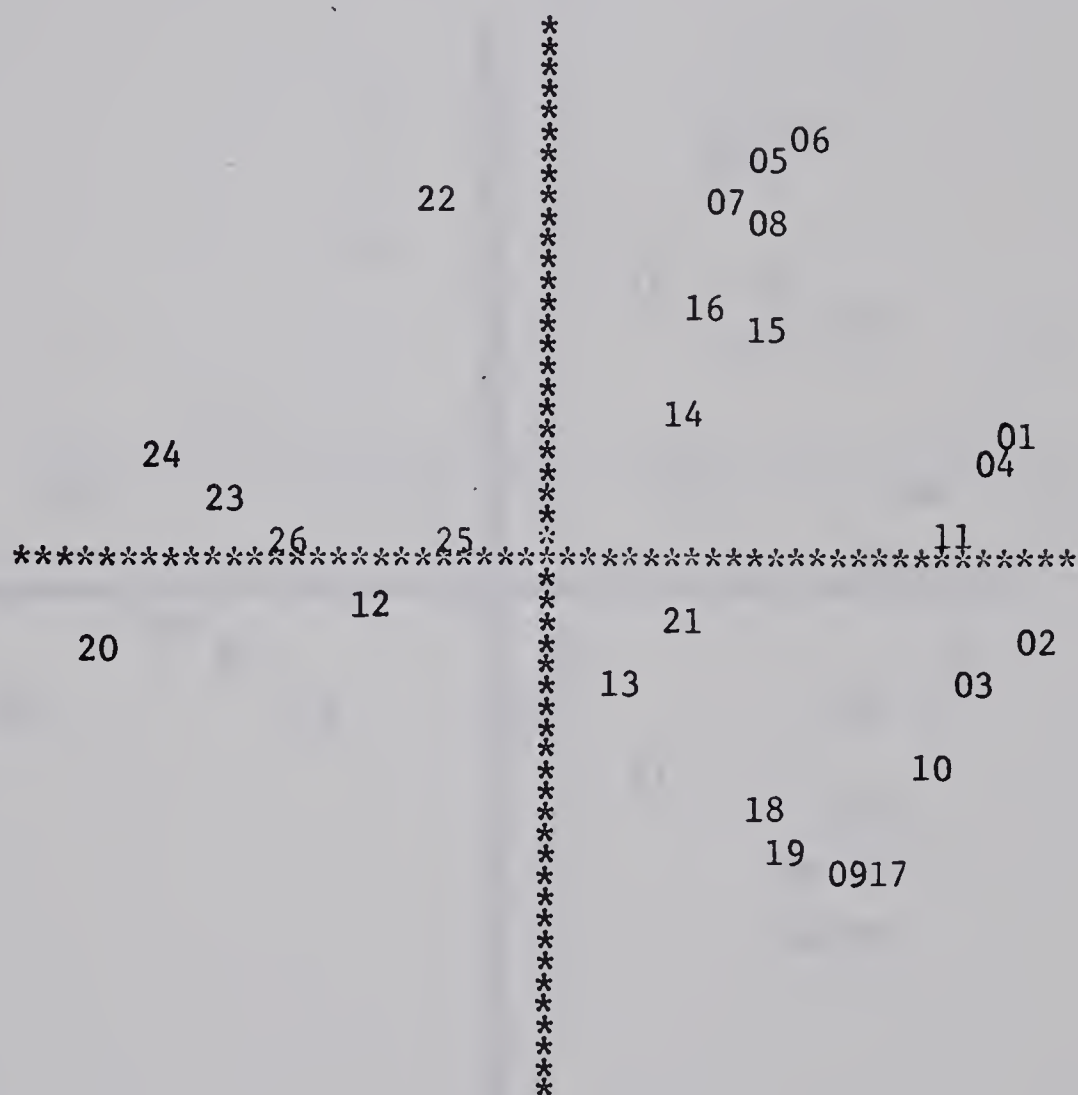


Figure 34

Item co-ordinates for Upward-Negative Space on Interpersonal
Ratings Questionnaire after session 2.

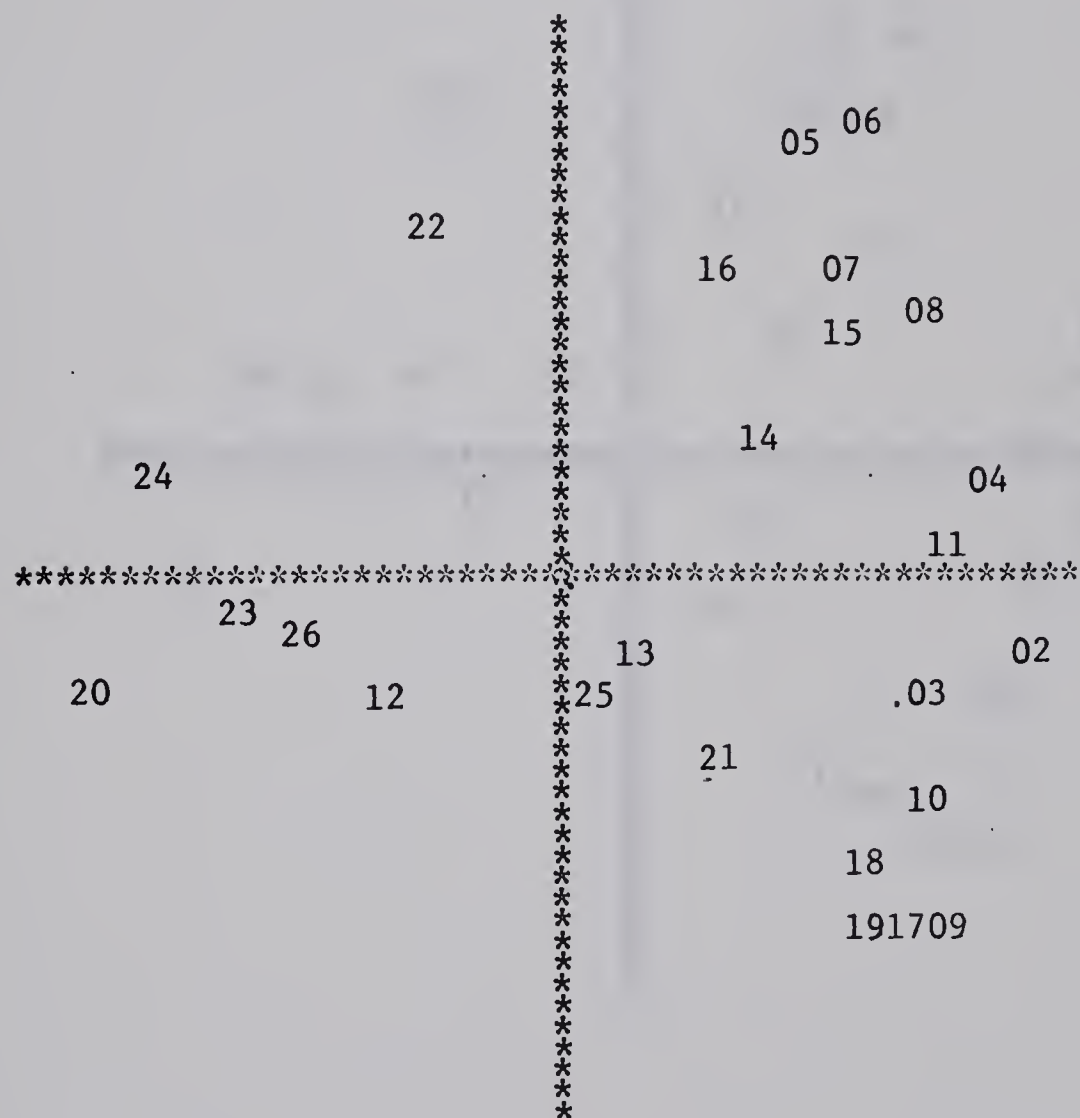


Figure 35

Item co-ordinates for Interpersonal Ratings Questionnaire using
Upward-Negative space, (after session 4)

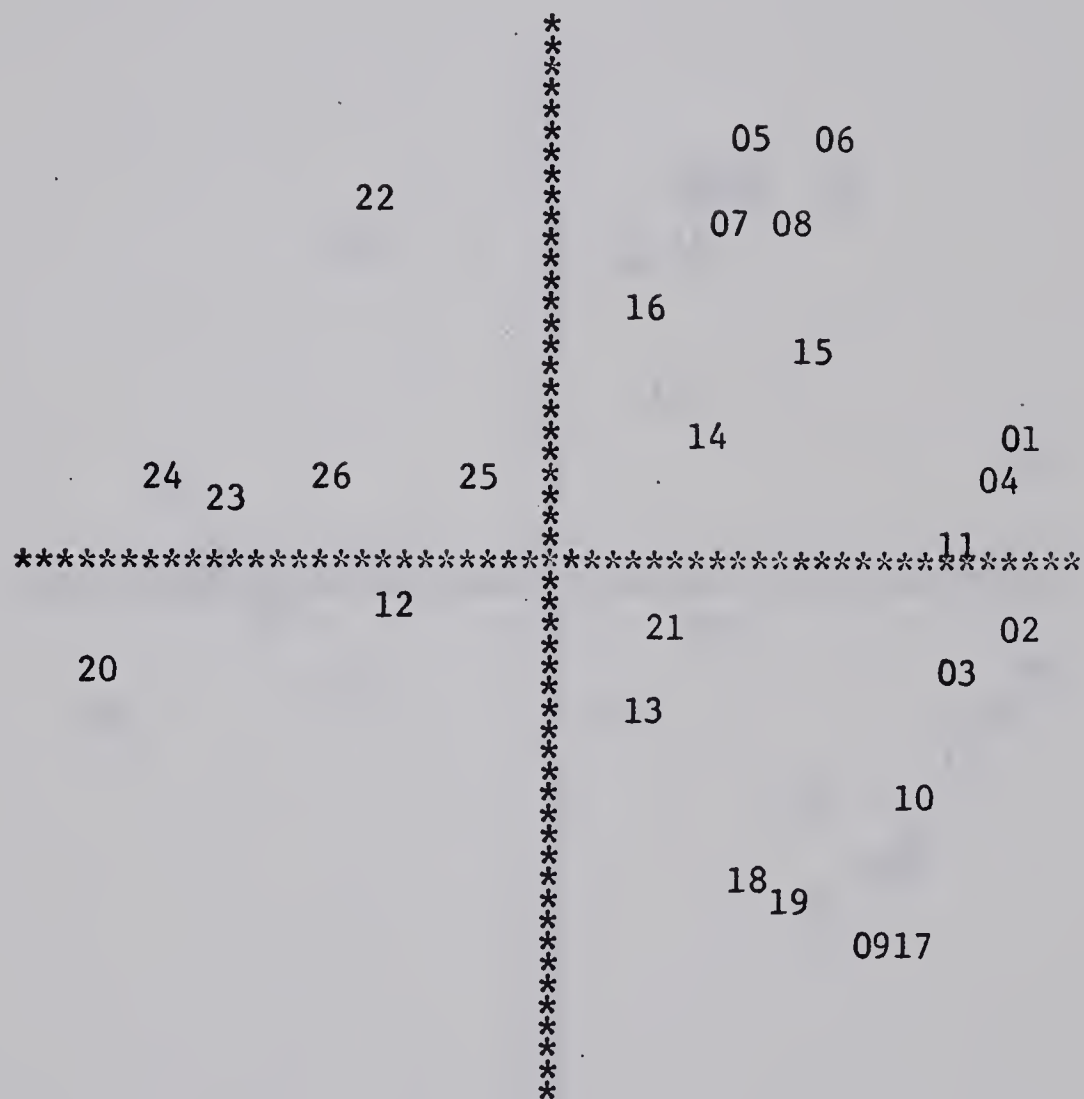


Figure 36

Item co-ordinates for Interpersonal Ratings Questionnaire, using
Upward-Negative Space, after session 7.

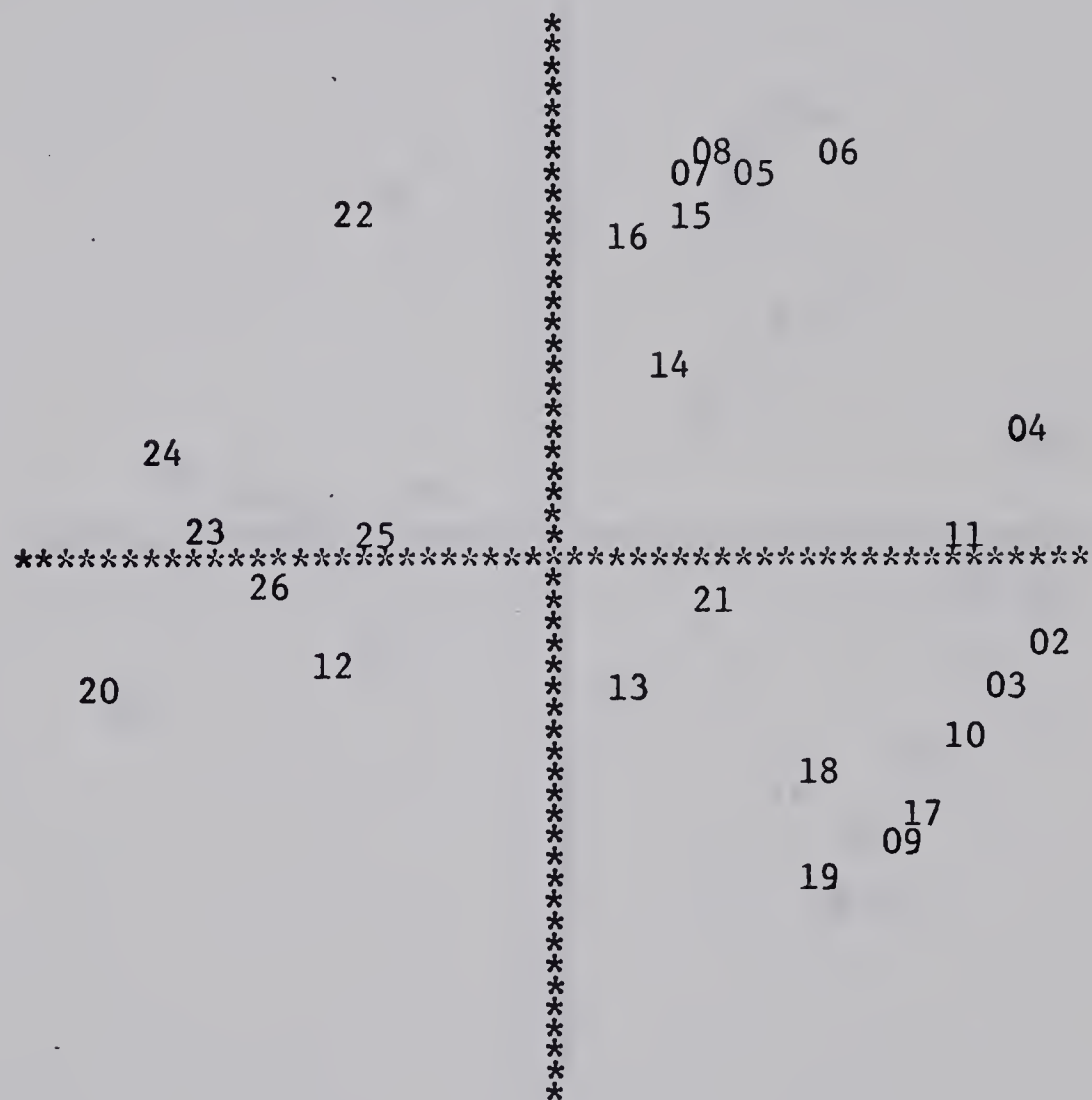


Figure 37

Item co-ordinates for Interpersonal Ratings Questionnaire,
using Upward-Negative space, after session 10.

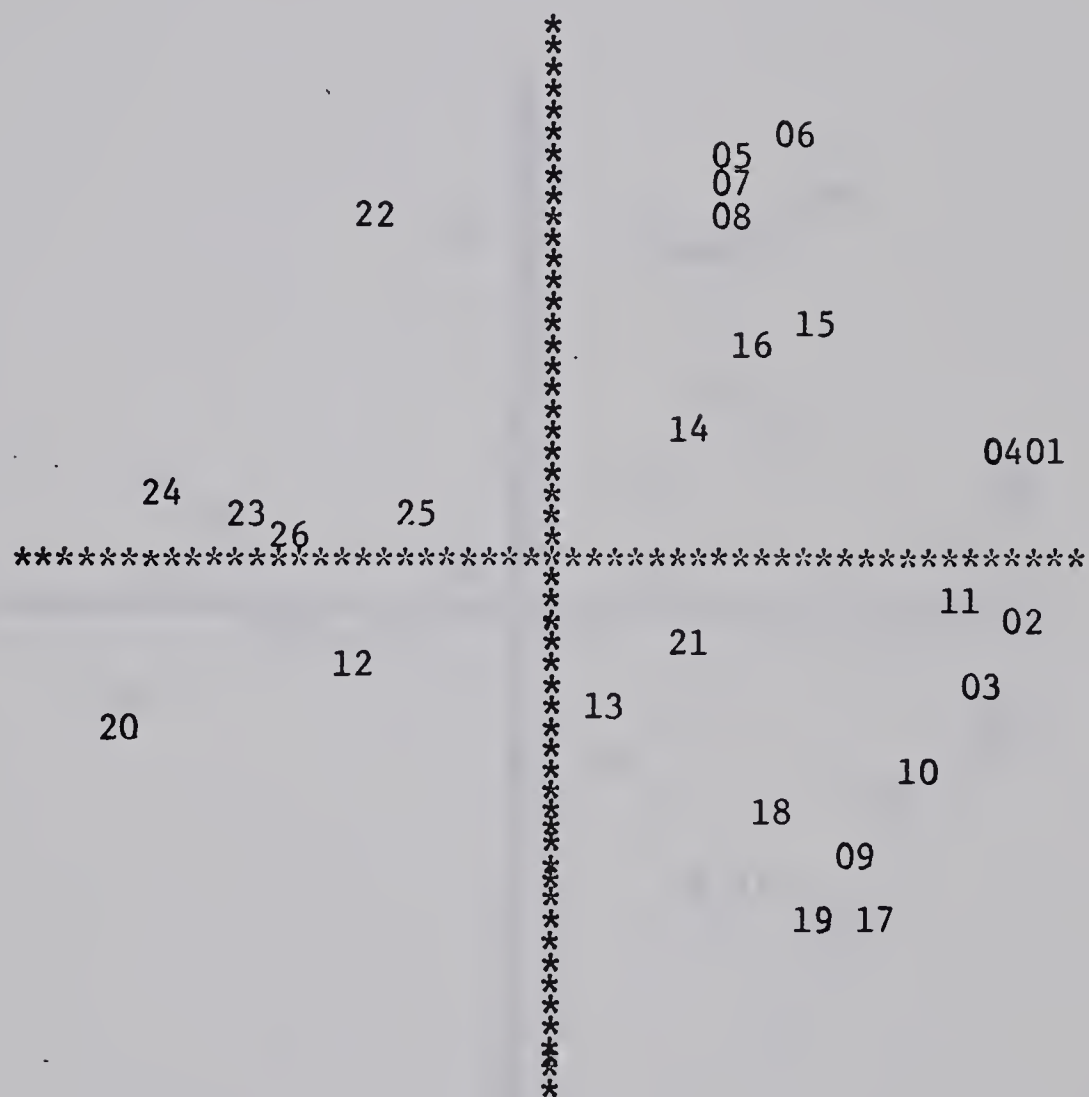


Figure 38

Item co-ordinates for Interpersonal Ratings Questionnaire, using
Upward-Negative space, after session 13

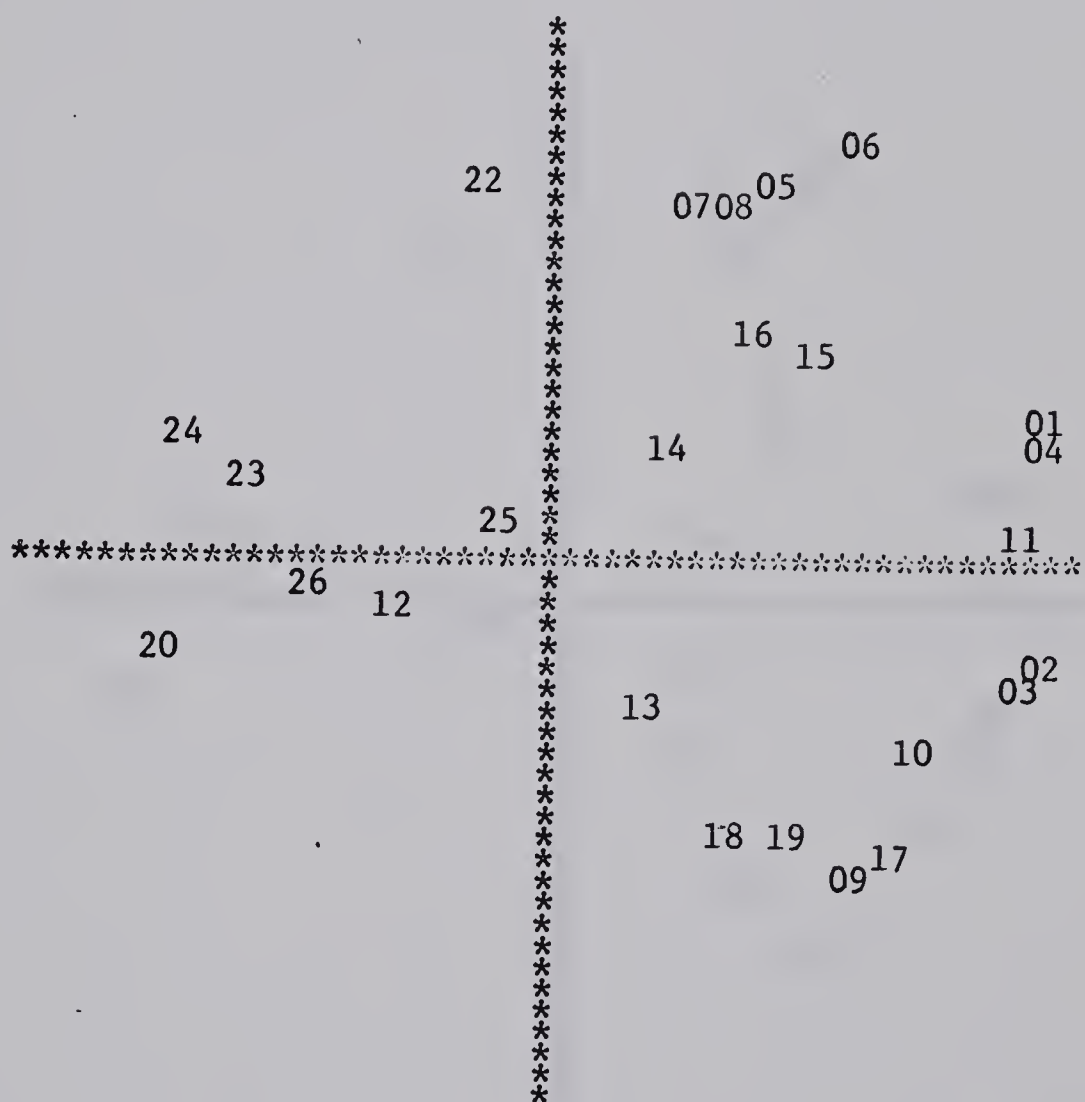
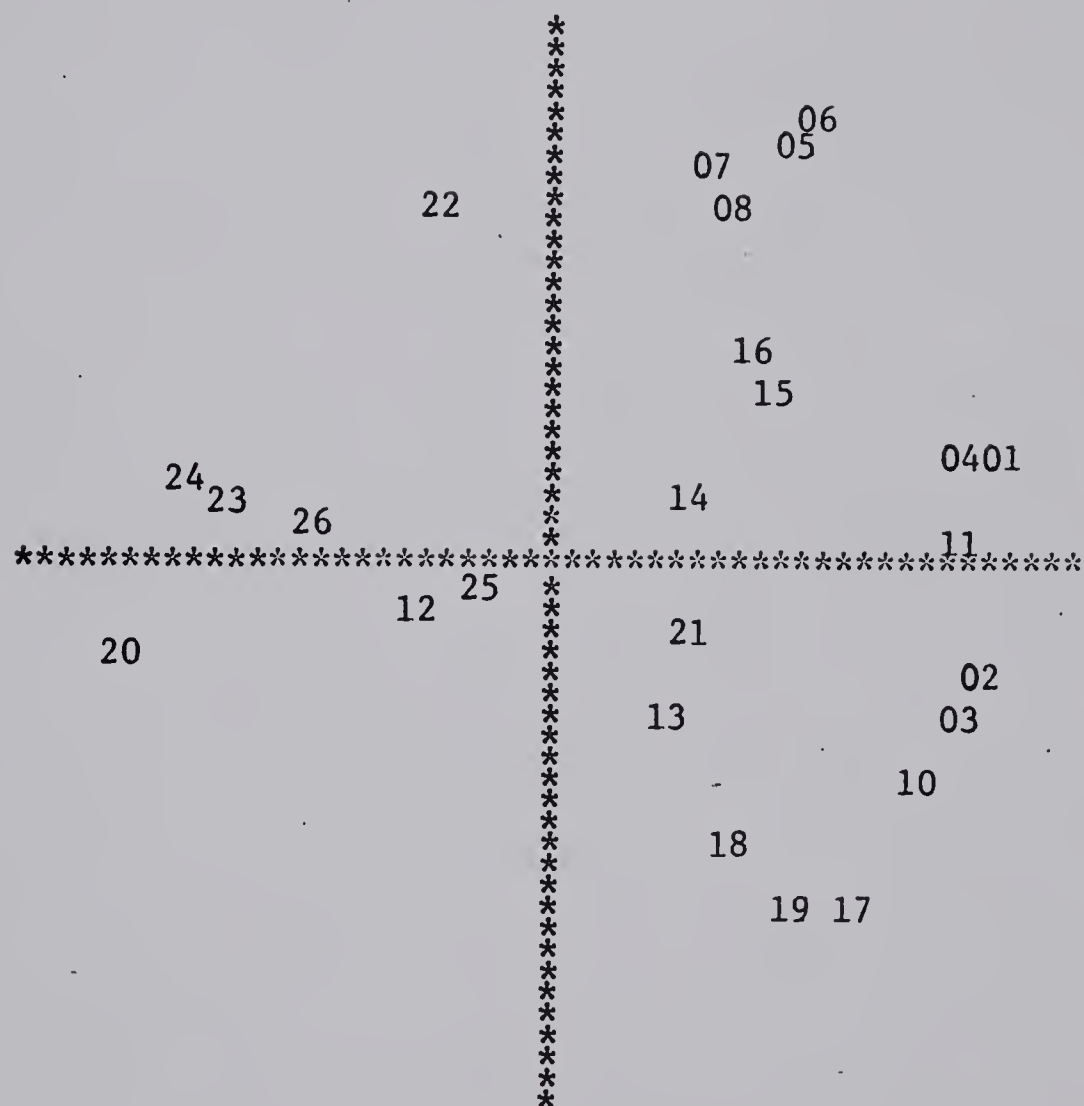


Figure 39

Item co-ordinates for Interpersonal Ratings Questionnaire, using
Upward-Negative space, after session 15.



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